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   Jamnagar - 361 008

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   Ministry of Health & Family Welfare
   Indian Red Cross Society Building, Red Cross Road,
   New Delhi - 110 001

3. Financial Advisor (AS & FA)
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   Govt. of India, Nirman Bhavan, New Delhi - 110 001

4. Dr. SK Sharma,
   Advisor (Ayurveda), Department of AYUSH
   Ministry of Health & F. W., Govt. of India
   Indian Red Cross Society, Red Cross Road
   New Delhi - 110 001

5. Dr. AB Thakar
   Reader & Senate Syndicate Member
   Department of Panchakarma
   IPGT & RA, Gujarat Ayurved University
   Jamnagar - 361 008, Gujarat.

6. Dr. GK Mansuri,
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   Near Khadim Society, Near Mubarak Mazid,
   Juhapura, Ahmedabad - 380 055

7. Four members to be nominated by Govt. of Gujarat

8. Prof. MS Baghel
   Director, IPGT & RA, Gujarat Ayurved University,
   Jamnagar - 361 008, Gujarat.

9. Dean, IPGT & RA
   Gujarat Ayurved University, Jamnagar - 361 008,
   Gujarat.

10. Shri. RM Jhala,
    Registrar, Gujarat Ayurved University,
    Jamnagar - 361 008.

Chairman
Member
Member
Member
Member
Member
Member
Member
Member
Member Secretary
Scientific Advisory Committee
Institute for Post Graduate Teaching and Research in Ayurveda

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    B-29/10, Nandigram,
    Lanka, Varanasi - 5.
    Member

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    Kaya Chikitsa
    1170/31, Revenue Colony,
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    Panchakarma
    Head, Panchakarma, Government
    Ayurved college & Panchakarma Hospital,
    Poojapura, Trivendra
    Member

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    B-6, New Medical Enclave, Naria,
    Banaras Hindu University, Varanasi - 5
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    Rasa Shastra & Bhaishajya Kalpana
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    Ayurveda, ISM&H,
    Banaras Hindu University,
    Varanasi - 5
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    Shalakya Tantra
    House # K-336, 1st B Cross, 1st A Main,
    Koramangala, 8th Block, Bangalore - 95
    Member

2h. Dr. Manoranjan Sahoo
    Shalya Tantra
    Director, All India Institute of Ayurveda
    Ministry of Health & Family Welfare,
    Indian Red Cross Society Building,
    Red Cross Road, New Delhi - 1
    Member

2i. Dr. U Shailja
    Kaumarabhritya
    Shri SDM College of Ayurveda & Hospital
    B M Road, Thannerhall, Hassan
    Karnataka – 1
    Member

3. Director General, CCRAS, 61-65, Institutional Area, Opp. "D"
   Member
   Block, Janakpuri, New Delhi - 58

4. Dr. SK Sharma, Advisor (Ayurveda)
   Member
   Department of AYUSH, Govt. of India, Ministry of Health & FW,
   Red Cross Society Building, New Delhi, 110 001.

5. Two nominated members from board
   Member

6. Prof. M. S. Baghel, Director, IPGT & RA, GAU, Jamnagar - 8.
   Member

7. Dean, IPGT & RA, Gujarat Ayurved University, Jamnagar - 8.
   Member

   Member Secretary
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Institute for Post Graduate Teaching and Research in Ayurveda

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   Vice Chancellor, Gujarat Ayurved University,
   Chanakya Bhavan, Jamnagar - 8
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2. Dr. Medhaswini B Jani,
   Director, ISM&H, Govt. of Gujarat
   Gandhinagar
   - Member

3. Dr. SK Sharma,
   Advisor – Ayurveda, Deptt. of Ayush,
   Government of India (or his representative)
   New Delhi.
   - Member

4. All Heads of the Teaching Depts.
   IPGT & RA, Jamnagar
   - Members

   1. Prof. RR Dwivedi, H.O.D. of Basic Principles
   2. Dr. TN Pandya, H.O.D. of Dravyaguna [Till 25.11.2010]
      Prof. Nishteshwar, H.O.D. of Dravyaguna [From 26.11.2010]
   3. Prof. PK Prajapati, H.O.D. of Rasa Shastra & B.K.
   4. Prof. HM Chandola, H.O.D. of Kayachikitsa
   5. Prof. VD Shukla, H.O.D. of Panchakarma
   6. Prof. KS Dhiman, H.O.D. of Shalya Tantra
   7. Prof. CB Bhuyan, H.O.D. of Shalya Tantra [Till December 2010]
      Dr. Sanjay Gupta, I/C H.O.D. of Shalya Tantra [From January 2011]
   8. Prof. HM Chandola, I/C H.O.D. of Roga Vigyan & Vikriti Vigyan
   9. Dr. KS Patel, H.O.D. of Kaumarabhritya
   10. Dr. LP Dei, H.O.D. of Stri Roga & Prasuti Tantra

5. Two members nominated by the Board of IPGT & RA
   1. Dr. AK Sharma,
      Professor, Dept of Kayachikitsa,
      NIA, Jaipur
      - Member
   2. Dr. Manoranjan Sahoo,
      Professor, Dept. of Shalya,
      BHU, Varanasi.
      - Member

6. One Principal on rotation of the affiliated colleges there is an up graded Dept.
   1. Dr. SG Bhadaliya,
      Principal,
      Govt. Akhandand Ayurved Mahavidyalaya,
      Badhra, Ahemdabad, Gujarat
      - Member

7. Prof. MS Baghel, Director, IPGT & RA
   - Member

8. Dean, IPGT & RA
   - Member

9. Shri RM Jhala, Registrar
   Gujarat Ayurved University, Jamnagar
   - Member Secretary
Preface

After independence, Govt. of India accepted its responsibility towards recognition and upgradation of Indian traditional systems of medicine. The first central organization as Central Institute for Research in Indigenous System of Medicine (CIRISM) in 1952 and Post Graduate Training Centre in Ayurveda in 1956 at Jamnagar. Since then more than 1405 scholars have received PG Degree and 148 PhD Degree from this Institute. Post Graduates of this Institute are managing various premier Institutions of Ayurveda in India and abroad as well. Presently this institute is fully financed by Govt. of India under central finance scheme and governed by the acts and statute of Gujarat Ayurved University. Board of Post Graduate Teaching & Research in Ayurveda is the governing body; Scientific Advisory Committee and academic committee are the other statutory bodies guiding the institute. The institute was also recognized as WHO Collaborative Centre for Indigenous System of Medicine and now the process of re-designation is in progress.

At present, the institute is having 10 post graduate departments (offering post graduate degree in 12 specialties) and Six well established laboratories to conduct the scientific research in Ayurveda. During the current year, total 48 students were admitted in M.D. (Ayu) / M.S. (Ayu) course out of which one was foreign national. Total 18 students were registered for Ph.D. course on stipendiary seats. This Institute also conducts courses of M. Pharma (Ayurveda) and M.Sc. (Medicinal Plants of Ayurveda) as part of Self finance activity. During the current year 18 students have been given admission in M Pharma (Ayurveda) course and 06 in M. Sc. (Medicinal Plants of Ayurveda).

The Institute being a premier institution of Ayurveda in India accepted the role of leader in Ayurvedic education and clinical management. Institute is organizing the Re-orientation Training Programme (RoTP) and CME for the teachers OTP for medical Doctors and medical officers of Ayurveda. During the reporting year, total 5 activities have been organized. Institute is organizing seminar / symposia / workshops at regular intervals. During the year 2010-2011 three workshop were organized.

Pharmacovigilance for ASU drugs - I.P.G.T.&R.A. has being recognized as National Pharmacovigilance Resource Centre for ASU drugs. Eight Regional Pharmacovigilance Centres and Thirty Peripheral Pharmacovigilance Centres have been established across the country under this programme. The centre has conducted four capacity building programs and 13 CME programs during the current year.

Digitalization of Manuscripts – Gujarat Ayurved University has more than 8,000 manuscripts in its library out of which total 515 manuscripts of Ayurveda were digitalized. These manuscripts are available on the website: “www.ayurvedamanuscripts.com”.

Activities with WHO collaboration - Institute is conducting various projects under WHO collaboration. During the year following projects were conducted:

Guidelines for Clinical Research in Ayurveda: A Guide lines for clinical research in Ayurveda has been prepared as part of WHO APW activity and same has been submitted to WHO for approval.

Standardization of clinical Terminologies in Ayurveda: Under WHO APW activity an effort has been made to develop an ideal dictionary for Clinical Terminologies of Ayurveda.

Capacity building program for the Trainers of Pharmacovigilance: Under the DFC project of WHO India country office; 4 programs have been organized.

AYU Journal: Institute is publishing quarterly peer reviewed journal ‘AYU’, 4 issues of the Journal have been published during the year. The AYU journal has been listed in Pubmed central and is freely available on web www.ayujournal.org.

Data Base preparation: A Data Base of Research was prepared and updated version was released in the form of CD ROM containing full transcription of M.D. (Ayu) / M.S. (Ayu) thesis carried out from 2000 to 2010.
Publications: During the year total 92 research papers were published by the faculty and scientists of the institute in peer reviewed journal out of which many are in international journals. 24 papers were published in E journals / proceedings / souvenir etc. Three project reports were submitted by the scientists pertaining to AYUSH project or private projects. In addition media papers and information booklets etc. were prepared and published in local languages.

The I.P.G.T. & R.A. is organizing various training programs for International scholars. During this academic session three months introductory course was conducted from 1st November with 10 students from the countries of USA, France, Romania, Japan, Zimbabwe, Turkey and Colombia. A six week training program for WHO fellows from Nepal, and Clinical training for 05 Ayurvedic students of Reidman College, Israel were also conducted. Six foreign students from Sri Lanka, Mauritius, Maldives and Nepal studying in M.D. (Ayu) / M.S. (Ayu) and 2 Sri Lankan students are doing Ph.D. 1 student from Iran is studying in M Sc Med. Plant. The faculty of the institute is being regularly visiting foreign countries on deputation by Govt. of India. During the year, Prof. M. S. Baghel and Dr. A B Thakar visited France, Switzerland and Germany. Dr. Galib attended BIMSTEC meeting in Bangkok, Thailand, Prof. R.R. Dwivedi visited Germany and Prof. H.M. Chandola visited Malaysia.

The Institute is organizing various out- reach activities for National programs and conducted medical camps in rural areas of Gujarat. During the year 40 Health Checkup Camps in Schools, 08 Diagnostic Camps in Rural Areas of SC, ST & OBC predominant population and 09 specialty camps were organized in the campus. Total 4 satellite clinics in the form of weekly O.P.D.'s are being conducted at Sasoi garden, Naval Centre, Valsura, Jamnagar, District jail, Jamnagar and old age home, Jamnagar. During this year, nearly 4000 patients were examined and given medicines at these O.P.D.'s. This institute has a well-managed Hospital with O.P.D. & I.P.D. facilities. During the year total 1,69,754 patients were treated as out- door patient which included 71691 female and 9340 children. Total 3451 patients were admitted to the various wards of the hospital and provided specialized treatment. The average bed occupancy was 64%. The Panchakarma section of the hospital is providing facilities to the patients. During the year nearly 79319 Panchakarma procedures were performed on the patients out of whom 45191 were female.

Construction of the state of art building for the academic wing of the institute at the cost of Rs 2140 lacs is in final stage. The new building will be ready for the use by July 2011. Other infrastructures are being updated to accommodate increased admission capacity and other new assignments.

During the year, total Rs 1400 Lacs were received as Non Plan Grant & Rs 1458 Lacs as Plan grant from the Department of AYUSH, Govt. of India which was fully utilized.

The institute is trying its best to achieve the targets set up by the Department of AYUSH and providing specialized health care facilities to the public. On this occasion I convey my sincere thanks to Govt. of India, authorities of the Dept of AYUSH, Dept of ISM & H, Govt. of Gujarat and Gujarat Ayurved University, Jamnagar for their cooperation provided for the smooth functioning of this institute. Special thanks are due to members of PG board and other regulating committees. I personally thank to all teaching, technical and administrative staff of the institute for achieving the targets. I also thank Dr Galib and Dr M. K. Vyas for preparing the manuscript of the annual report and shri D. D. Kanjaria and Shri Bhavik K. Vavdia for managing the printing process.

(Prof M S Baghel)

Director
Introduction:

The department of Basic Principles (Maulika Siddhanta) conducts teaching, training and research in two specialties viz. (i) Ayurved Siddhanta evam Darshana (ii) Samhita. The department also teaches the compulsory subjects i.e. Research Methodology and Medical Statistics in both ‘Ka’ and ‘Kha’ groups of first year M.D. (Ayu.). Moreover; for ‘Ka’ group the subjects like ‘Basic Principles of Sharira’ and ‘Basic Principles of Ayurveda’ are being taught by the department. For the second and final year M.D. (Ayu.) scholars; the subjects like ‘Padarth vijnana’, ‘Darshanika Siddhanta’, ‘Aadharbhuta Siddhanta’, ‘Charaka Samhita’, ‘Sushruta Samhita’, ‘Ashtanga Samgraha’ and ‘Ashtanga Hridaya’ are also being taught throughout the year.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof. RR Dwivedi</td>
<td>Professor &amp; HOD</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>2</td>
<td>Dr. MK Vyas</td>
<td>Associate Professor</td>
<td>M.D. (Ayu), Ph.D., M.A. (Sanskrit)</td>
</tr>
<tr>
<td>3</td>
<td>Dr. AS Baghel</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>4</td>
<td>Dr. HA Vyas</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>5</td>
<td>Dr. SB Kamble</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu). M.A. (Sanskrit)</td>
</tr>
<tr>
<td>6</td>
<td>Dr. RK Jakhmola</td>
<td>Bhashashatri</td>
<td>M.A., Ph.D. (Sanskrit)</td>
</tr>
<tr>
<td>7</td>
<td>Mr. VK Rana</td>
<td>Statistician</td>
<td>M.Com.</td>
</tr>
</tbody>
</table>

During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

Academic Activities

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M.D. (Ayu) Students</td>
<td>018</td>
</tr>
<tr>
<td>2</td>
<td>Ph.D. (Ayu) Students</td>
<td>003</td>
</tr>
<tr>
<td>3</td>
<td>Ph.D. (Ayu) Degree awarded</td>
<td>000</td>
</tr>
<tr>
<td>4</td>
<td>Theory classes conducted for 1st year M.D.(Ayu)</td>
<td>065</td>
</tr>
<tr>
<td>5</td>
<td>Theory classes conducted for 2nd &amp; 3rd year M.D.(Ayu)</td>
<td>603</td>
</tr>
<tr>
<td>6</td>
<td>Departmental Seminars conducted</td>
<td>035</td>
</tr>
<tr>
<td>7</td>
<td>Papers published</td>
<td>009</td>
</tr>
<tr>
<td>8</td>
<td>Papers presented including Guest lectures</td>
<td>028</td>
</tr>
</tbody>
</table>

CLINICAL RESEARCH: Hospital Activities - General Data:

- No. of patients visited OPD: 16235
- Patients admitted in IPD: 00093
- Participation in Sarvaroganidan chikitsa camps: 00007
RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Submitted)

1. A Critical Study of Srotovimaniya Adhyaya with special reference to Annavahasrotas and Amlapitta  

   **Scholar** : Dr. Umapati C. Baragi, **Guide**: Dr. Mahesh Kumar Vyas

This study was a literary based placebo controlled clinical study. In literary study, literature pertaining to the *Srotovimaniya Adhyaya* was compiled from available *Samhitas* along with their commentaries. The information was sorted, so as to fulfill the aims according to each objective of the study. Clinical study was conducted to assess the effect of *Dashanga Kwatha Ghana Vati* against *Amlapitta*. Patients selected for the study were randomly divided into 2 groups viz. Group – A (67 patients), received *Dashanga Kwatha Ghana Vati* and Group – B (43 patients) received Placebo tablets. The trial drug *Dashanga kwatha ghana vati* was superior to Placebo in reducing the mean sign and symptom score of *Urdhwaga Amlapitta* over 8 weeks of therapy. Further there were no clinically significant adverse reactions, and the overall acquiescence to the treatment was excellent.

Ph.D. RESEARCH PROJECTS: (In Progress)


   **Scholar** : Dr. Shubhangi Kamble **Guide**: Prof. R. R. Dwivedi

2. Conceptual and Applied Study of Bhaishajya Kaala w.s.r to Pragbhakta kaala and its Therapeutic Effect on Sthaulya.  

   **Scholar** : Dr. Ashwini V. Junjarwad **Guide**: Dr. Mahesh Kumar Vyas

3. A comprehensive and critical study of Paradi Gunas specifically on the Samskara Guna.  

   **Scholar** : Dr. Yogesh M. Jirankalgikar **Guide**: Prof. R.R. Dwivedi

M.D. (AYU.) RESEARCH PROJECTS: (Completed)

Samhita Specialty:


   **Scholar** : Dr. Kavita M. Vyas **Guide**: Prof. R.R. Dwivedi

Shareera & Mana are related with each other through their fundamental functional forces viz. the Tridoshas and Trigunas respectively. An interrelationship between both kinds of doshas has been established here at different levels like origin, functioning, health, diseases and salvation. To know the interrelationship at the level of origin,
knowledge of conjugation and configuration i.e. Amshamsha Kalpana of Mahabhootas has been applied which shows that Vata, Pitta and Kapha are related quantitatively with Rajas, Sattva and Tama respectively. At the level of Kriyatmaka (functioning), it was found that Vata has affinity with Rajas while Kapha with Sattva. Quantitatively Pitta is dominant in Sattva, but the interaction of Tama with Sattva and Raja occurs in some odd way resulting into comparative dominancy of Sattva and Raja, qualitatively. When Vata gets provoked due to obstruction it shows resemblance with Tamas.


Scholar: Dr. Sangeeta S. Mishra                  Guide: Prof. R.R. Dwivedi

In applied study for the evaluation of Prakriti sama samaveta Siddhanta (PSS) and Vikriti vishama samaveta Siddhanta (VVS) in the context of Rasa Dravya prabhava in Triphala curna (1:2:4) and powders of their individual ingredients (Haritaki, Bibhitaki and Amalaki) was observed pharmacognostical and phytochemical scheme and Dosa - Vikara prabhava in the disease Vicaricka for the survey study. In microscopic characteristics, it was found that some characters of Triphala were similar to individual drugs, which indicates that the resultant (Triphala) has partial samavetata of Prakṛtisama type. Some other characteristics of Triphala were different from all the 3 drugs. Triphala possesses very few properties of its individual contents. After doing HPTLC of Triphala and its 3 contents, the no. of substances found in Haritaki-8, Bibhitaki-11, Amalaki-13 & Triphala- 4, 9, 8 & 5 substances found in Amalaki, Haritaki & Bibhitaki respectively, were totally dissimilar to Triphala-contents. Observing the dissimilarities, it can be inferred that the effect of Triphala is produced due to VVS of its contents. 35 patients were selected and observed that the 24 (68.57%) patients were having dissimilar Nidana & Laksana relationship of VVS out of them 11 (31.28%) patients were having similar it in Nidana & Laksana producing in Vicaricka due to PSS.

Siddhanta specialty:

1. Basic concept of Disha and its applied aspect in Ayurveda.

   Scholar : Dr. Vishal S. Pandya                  Guide : Prof. R.R. Dwivedi.

The study has been carried out to evaluate the effect of Disha as a Karana Dravya in Ayurveda. Disha has accepted as Karana Dravya but very less description is available regarding its causativeness in various fields of Ayurveda so the study has included various references from the Ayurvedic texts as well as allied sciences like Darshanshastra, Vastu shastra, Jyotisha shastra and also from other contemporary medical systems. With the help of these conceptual references, a survey study has been carried out on 104 healthy volunteers to evaluate the effect of Disha of their sleeping (head position) and its effect on their health. It was found that the volunteers sleeping with their heads towards east direction were found to be healthier than other volunteers. The findings supported the references of classics, where east direction considered as good and north as bad.

2. Applied Study on Jara i.e. Ageing and Role of Panchagavya

   Scholar : Dr. Nisha Parmar                  Guide: Dr. Mahesh Kumar Vyas
   Co-Guide: Dr. Hitesh A. Vyas

Applied study on Jara was observed by specific symptoms according to classics which are Medha Hani, Twak Hani and Dristi Hani subjectively as well as objectively. In this study randomly selected patients were divided into two groups. Group A received Panchagavya Ghrita, while Group B received Plain Go Ghrita at the dose of 10 gms / day at Nirannakala (morning empty stomach) for 90 days. The final result shows that in both groups; highly significant and significant results were found respectively, especially Group A showed better results in comparison to Group B.

3. Role of diet and lifestyle in relation to health w.s.r to management of madhu meha (Diabetes Mellitus).

Scholar : Dr. Gyaneshwarsing Guddoye   Guide : Dr. Mahesh Kumar Vyas
Co-Guide : Dr. Hitesh A. Vyas

The Ayurvedic diet and lifestyle materials proposed in the conceptual work have all the potential that can be use to set up an Ayurvedic diet & lifestyles wellness centers in foreign countries & also can be use as a great potential in building up Ayurveda Awareness and recognition in unrecognized countries of the world. The selected 30 patients were divided into 2 groups where both Group 1 (n=6 of Ahara and Vihara + Varadi Kwatha) finally show a total effect of 66.67% and Group 2 (n=24 of Varadi Kwatha) an Ayurvedic drug shows a 70.83% of moderate improvement. A very highly significant result (P<0.001) was concluded in Prabhuta mutrata and highly significant (P<0.01) in Klaibya of Group 1. While in group 2, a very highly significant (P<0.001) result was observed in prabhuta mutrata, Avil mutrata, shrama swasha,Pipasaadhiyka, Pindikovestana, Daurbalya, Alasya/utsahahani, Klaibya and highly significant (P<0.01) in FBS, Karapadatala daha, Swedadhikya, Nidradhikya and Purishabadhdhata. According to the affectivity of therapy, Varadi kwatha has proved as good remedial processes that can be used in general practice to correct the condition of Madhumeha (DM). In Group 1, sample size is small in order to come to a conclusion so there is a high need to increase it and as there is a very good possibility to come up with a better result in future.

4. An Applied study of Interrelationship of Jatharagni and Dhatvagni in context to Dhatuvrdhdi.

Scholar : Dr. Kishor G. Satani   Guide : Dr. Hitesh A. Vyas
Co-Guide: Dr. Mahesh Kumar Vyas

Ayurveda describes various causes of Raktaksaya, Jatharagni mandya is one among them. When Rakta Dhatvagni gets disturbed, it ultimately leads to Raktaksaya. The study was carried out on 46 patients of such kind of Raktakşaya. Patients were divided into two groups with simple random sampling method. Group A received Panchakola tablet while Group B was considered as placebo control group and was given rice powder tablet. Duration of the treatment was 6 weeks. Classical Ayurvedic signs and symptoms with haemetological parameters like Hb gm%, TIBC, S. Firittin level etc. were studied before and after treatment. Group A showed statistically highly significant increase in Hb% and significant increase in other subjective and objective parameters. Group B showed significant effect on subjective parameters which was not reflected on objective parameters.
M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

Samhita Specialty:

1. A Critical Study of Hitahitiya Adhyaya of Sushruta Samhita w.s.r.to Viruddha Aahara [An Experimental & Survey Study].
   
   **Scholar:** Dr. Asmita Vaidya  
   **Guide:** Dr. Mahesh Kumar Vyas  
   **Co-Guide:** Dr. A.S. Baghel & Dr. B. Ravishankar

2. A Critical Study of “Annapana Chatuska” w.s.r. to “Atimatra ashanam Ama pradosha Hetunam”.
   
   **Scholar:** Dr. Khushbu Gupta  
   **Guide:** Dr. Mahesh Kumar Vyas  
   **Co-Guide:** Dr. Hitesh A. Vyas

3. A conceptual study of "Vyadhi Samuddeshiya Adhyaya" of Sushruta Samhita w.s.r. to Rasapradoshaja Vikara (Panduroga).
   
   **Scholar:** Dr. Niraj Mandod  
   **Guide:** Dr. A.S. Baghel  
   **Co-Guide:** Dr. Mahesh Kumar Vyas

   
   **Scholar:** Dr. Shrikant Bajarang Sanmukh  
   **Guide:** Dr. A.S. Baghel  
   **Co-Guide:** Prof. R.R. Dwivedi

   
   **Scholar:** Dr. Dhara Patel  
   **Guide:** Dr. Hitesh A. Vyas  
   **Co-Guide:** Prof. R.R. Dwivedi, Dr. Mahesh Kumar Vyas

Siddhanta Specialty:

1. Concept of Panchabhautika Arabdata of Dravyas (Conjugation & Configuration of Mahabhutas) and Applied Aspect of Samana & Vicitra Pratyayarabdha Siddhanta.
   
   **Scholar:** Dr. Anuruchi Jadoun  
   **Guide:** Prof. R.R. Dwivedi

2. Conceptual and Applied study of ‘Samavaya’ as Karana / Padartha in Ayurved Chikitsa and Darshana.
   
   **Scholar:** Dr. Anil Avhad  
   **Guide:** Prof. R.R. Dwivedi

3. Philosophical & Applied Ayurvedic Aspects of Manas Siddhant w.s.r. to Smriti.
   
   **Scholar:** Dr. Hetal Amin  
   **Guide:** Dr. Hitesh A. Vyas  
   **Co-Guide:** Dr. Mahesh Kumar Vyas
4. Applied concept of Panchavidha Vata in relation to their panchabhautika conjugation & configuration.

Scholar : Dr. Harshal Sampat Rao Sable  
Co-Guide : Dr. Mahesh Kumar Vyas  
Guide : Prof. R.R. Dwivedi

5. Fundamental and Applied study of “Manda” and “Tikshna” guna with different laboratory methods and experiments.

Scholar : Dr. Vaibhav Ashok Bhadane  
Co-Guide : Dr. Hitesh A. Vyas  
Guide : Prof. R.R. Dwivedi

6. Inter-relationship of Prakriti, Diet & Life style w.s.r. to Amlapitta

Scholar : Dr. Poorvi Trivedi  
Co-Guide : Prof. R.R. Dwivedi, Dr. Hitesh A. Vyas  
Guide : Dr. Mahesh Kumar Vyas

7. Fundamental and Applied aspect of KARMA as KARANA in Ayurveda w.s.r.to Langhana Karma

Scholar : Dr. Dharmi P. Bhuva  
Co-Guide : Prof. R.R. Dwivedi  
Guide : Dr. Shubhangi Kamble

LITERARY RESEARCH UNIT:

Dr. R.K. Jakhmola – Bhashashastri, helped in digitization work of manuscripts. Detailed study, re-writing and Hindi translation of “Shatashloki” is completed. Hindi Translation work of “Sara Sangraha” is in progress.

EXTRA CURRICULAR ACTIVITIES:

On the occasion of ‘Vasanta Panchami - Saraswati Poojana’ (08.02.2011) “Sadyanta Patha” of “Sushruta Samhita” was organized by the department.

* * * * *
Introduction:

Department of Dravyaguna renders training about teaching and research aspects. This branch basically deals with drugs of plant and animal origin. Department imparts teaching on fundamental principles of Dravyaguna, identification of medicinal plants and their different parts, cultivation, collection and preservation etc to MD (Ayu.), M. Pharm (Ayu) and M. Sc. (Medicinal Plants) students. In addition; Department gives support for students doing research in Pharmacognostical, Analytical, Pharmacological and Pharmaceutical fields attached with IPGT & RA. Department is equipped with well furnished museum with various drug specimens collected from different parts of country. It has 186 theses, 400 compilations, 100 laminated photographs and near about 500 standard drugs. Apart from the above, Department provides assistance to scholars from foreign nationals under short term Ayurveda and other WHO nominated courses.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dr. K Nishteswar</td>
<td>Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>2 Dr. TN Pandya</td>
<td>Associate Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>3 Dr. Rabinaryan Acharya</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>4 Dr. BR Patel</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
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Academic Activities During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

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<thead>
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<th>Total</th>
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<tr>
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<tr>
<td>2 Ph.D. (Ayu) Scholars</td>
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<td>3 Ph.D. (Ayu) Degree awarded</td>
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<td>4 Theory classes conducted</td>
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<td>5 Clinical / Practical demonstrations</td>
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<td>6 Papers published</td>
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<td>7 Guest lectures</td>
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CLINICAL RESEARCH: Hospital Activities - General Data:

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</tr>
<tr>
<td>Patients admitted in IPD</td>
<td>0084</td>
</tr>
</tbody>
</table>
RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Submitted)

1. Evaluation of Anti-Ulcerogenic and Anti-Oxidant activities of Jivanti 
   (Leptadenia reticulata retz. wt. et Arn)

   Scholar: Dr. Atanu Pal,  Guide: Prof. P.P. Sharma,  Co-Guide: Dr. B. Ravishankar

'Jivanti', familiar since vedic era for its jivaniya, balya, rasayana and tridosha shamaka. Some of these properties may be correlated with anti-oxidant in current scenario. Leptadenia reticulata (Retz.) wt. et Arn. can be considered as genuine source of Jiv anti. In the pharmacological study; the test drug Jivanti Ghana Vati is evaluated for anti-gastric ulcer effect against pyloric ligation and forced swimming stress induced gastric ulcer, where the ulcers remain un-affected in pyloric ligation and stress ulcers being reduced. This indicates that the test drug may possess cytoprotective activity in stomach. In clinical study, the trial drug is given to the patients (42) of Group A at the dose of 500mg. twice daily with water for 28 days. In standard control group (Group B, 38 patients) vitamin-c tablet is given at the dose 250mg. twice daily with water. Group A showed significant improvement in relieving the cardinal signs and symptoms of Amlapita like Avipaka, tikta-amlodgara, shoola, vamana and hrit-kantha daha. Complete remission is found in 11.90% of Group A and 10.52% in Group B, whereas marked improvement is observed 83.33% and 84.21% in group A and group B respectively. Based on this, it can be concluded that the use of single drug Jivanti may be potent enough to reduce the signs and symptoms of Amlapitta to moderate improvement level or complete remission.

Ph.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

1. Gunakarmatka study of the bark of Bhramra chhallika (Hymenodictyuon excelsum Wall.) wsr to deepana pachana activity.

   Scholar: Dr. Hemang N. Joshi,  Guide: Dr. P.P. Sharma

2. A comparative pharmacognostical and Phyto- pharmacological evaluation of raw and shodhita Bhallataka (semecarpus anacardium Linn.)

   Scholar: Dr. R. Ilanchezhian  Guide: Dr. Rabinarayan Acharya

3. A comparative pharmacognostical and Phytopharmacological evaluation of Vaca and Sodhita Vaca (Acorus calamus Linn.)

   Scholar: Dr. Savita D Bhat  Guide: Dr. Rabinarayan Acharya

4. A comparative Pharmacognostical, Phytopharmacological evaluation of Raw and Sodhita Kupilu Seeds (Strychnus nuxvomica Linn.)

   Scholar: Dr. Swarnendu Mitra  Guide: Dr. Rabinarayan Acharya
5. A phytopharmacological evaluation of role of sodhana on expression of biological activities of Langali moola (*Gloriosa superba* Linn.)

**Scholar:** Dr. Bhargava V Bhide  
**Guide:** Dr. Rabinarayan Acharya

6. Analytical study on the dravyas of laghupanchamoola and it’s pratinidhi dravya with aspects of categorization.

**Scholar:** Dr. Pravin Joshi  
**Guide:** Dr. Bhupesh Patel

**Ph.D. (M.Pharm. / M.Sc. – Med. Pl.) RESEARCH PROJECTS:** (In Progress)

1. A Pharmacognostical, pharmaceutical, pharmacological investigations on roots and stems *Cissus rependa* Vahl.

**Scholar:** Harisha C Rudrappa  
**Guide:** Dr. Rabinarayan Acharya

2. A Pharmacognostical, Phytochemical, Pharmacological evaluation of wild and cultivated variety of Eranda root (*Ricinus communis* Linn.)

**Scholar:** Krunal Doshi  
**Guide:** Dr. Rabinarayan Acharya

3. Pharmacognostical and Phytochemical study on whole plant of *Linaria ramosissima* (Wall.)

**Scholar:** Preeti Pandya  
**Guide:** Dr. Rabinarayan Acharya

**M.D. (AYU.) RESEARCH PROJECTS:** (Completed)

3. A Pharmacognostical and pharmacological evaluation of Badichang (*Symphorema polyandrum* Wight) w.s.r. to its Vishagna karma (Anti venom Action) on *Naja naja* Venom.

**Scholar:** Dr. Sarang Lakhmale  
**Guide:** Dr. T.N. Pandya,  
**Co Guides:** Dr. Rabinarayan Acharya, Dr. V.J. Shukla, Dr. Ravishankar B.

Transverse section of *Symphorema polyandrum* Wight. fruit showed epicarp, mesocarp and inner wall. The whole fruit was covered with papery calyx. Powder microscopy shows multi-branched, simple and multi-cellular trichomes of calyx, tannins, oil globules and aleurone grains from mesocarp cells. Lignified fibres, aleurone grains, starch grains, endocarp cells and protein content cells were noticed in the endosperm. Seed of the plant was evaluated for its Rasa by *Rasanirdharana* study and it found that, the drug is having *tikta pradhna lavana varjit pancha rasa*. Ash value (04.18%), Hexane soluble extract (34.44%), Water soluble extract (33.18%), Alcohol soluble extract (19.25%) and chemical constituents like alkaloids, glycosides, phenols, tannin and saponin were evaluated. Pharmacological study showed some results on protection against venom induced biochemical and haematological changes and anti-inflammatory activity on venom induced paw oedema in rat’s models.
4. A comparative appraisal of Prishniparni (*Uraria picta* Desv.) and its substitutes w.s.r. to its Pharmacognostical, Physico-chemical, pharmacological profile.

**Scholar:** Dr. Bhavesh Patil,  
**Guide:** Dr. BR Patel,  
**Co-Guides:** Dr. Ravishankar B., Dr. V J Shukla

Plant resources particularly medicinal plants are disappearing at an alarming rate and not enough attention is being given to seek alternate sources or substitutes for many of these plants. Prishniparni, one of such drugs is used singly as well as widely in Ayurvedic formulations as an important ingredient. But due to less natural resources and lack of cultivation there is less availability of the drug. Hence an attempt had been made to compare and evaluate *Uraria picta* Desv. and *Alysicarpus longifolius* W. & A. Prodr. (Used traditionally as Prishniparni in Saurashtra region of Gujarat state) on the basis of their pharmacognostical, physicochemical and pharmacological profiles. The study revealed that both *U. picta* and *A. longifolius* have similar Pharmacognostical and preliminary physicochemical profiles, while both have different pharmacological actions.

5. Role of kaalaprakasha on Dravyakarmukatva in context to deepana Karma of Purana and Navya Vidanga.

**Scholar:** Vd. Sunil. J. Bamania  
**Guide:** Dr. T.N. Pandya,  
**Co-Guide:** Dr. B.R. Patel, Dr V.J. Shukla

In this study, a comparison between Purana and Navina of Vidanga has been done for Deepana Karma. Drug was administrated after meal with Anupana of Koshna Jala. Total 21 patients of Adiptagni state were thoroughly examined, investigated and advised for 15 days. In the management group 21 patients of Adiptagni state were treated. Drug was administrated in a dose of 2.5 g twice daily after meal with Anupana of Koshna Jala. Both the groups showed highly significant results in all parameters. In comparison, Group A showed better result than group B.

6. A Pharmacognostical, pharmacological evaluation of a Maldivian medicinal plant "Kulhafila" (*Launaea sarmentosa*(Willd) schultz-Bip. Ex Kuntze)

**Scholar:** Dr. Yusriyya S  
**Guide:** Dr. Rabinarayan Acharya  
**Co-Guide:** Dr. Harisha R, Dr. V.J. Shukla

*Launaea sarmentosa*, locally known as Kulhafila in the Maldives is a stoloniferous herb, native to tropical Indian coastline. Literary search was conducted on ethnomedicinal plants used for gynecological disorders from available literature. 477 plants of 123 families were found out. In the present study the whole plant was studied as per API guidelines for its macroscopic, microscopic, organoleptic, histochemical characteristics. The plant was botanically identified as *Launaea sarmentosa* Willd- Bip. Exe Kuntze (Asteraceae) based on its morphological characteristics. Microscopic study of the plant showed laticiferous cells, calcium oxalate crystals, tannin content, pitted vessels and simple fibres as the specific identifying characteristics. Rasa of the root was found to be Madhura and that of leaf is Lavana. Root powder was analysed for physicochemical parameters such as loss on drying, total ashvalue, water and petroleum soluble extractivevalue etc. HPTLC was conducted on the unsaponifiable and bitter fraction of the root powder. The saponifiable fraction was subjected for GC-MS and 4 major peaks were identified. Heavy metal analysis was conducted on the root and leaf powder. The
leaf was analysed for its nutritional value. Some of the Phyto-constituents of the root are alkaloids, flavonoids and steroids. Pharmacological studies were conducted on the root powder to evaluate some of its ethnomedicinal claims such as Deepana Pachana, diuretic and hypnotic activity which was found to be non-significant.

**M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)**

1. **A Phyto-Pharmacological study on certain Kashaya Rasa predominant plants w.s.r. to their Atiyoga.**  
   **Scholar:** Dr. Rasika H Kolhe  
   **Guide:** Dr. Rabinarayan Acharya, Dr. B Ravishankar, Dr. V.J. Shukla

2. **A Phyto-Pharmacological study on certain Amla Rasa predominant plants w.s.r. to their Atiyoga.**  
   **Scholar:** Dr. Kalpesh Panara  
   **Guide:** Dr. Rabinarayan Acharya, Dr. B Ravishankar, Dr. V.J. Shukla

3. **A Phyto-Pharmacological study on certain Tikta Rasa predominant plants w.s.r. to their Atiyoga.**  
   **Scholar:** Dr. Shital A. Meheta  
   **Guide:** Dr. Rabinarayan Acharya, Dr. B Ravishankar, Dr. V.J. Shukla

4. **A Phyto-Pharmacological study on certain Katu Rasa predominant plants w.s.r. to their Atiyoga.**  
   **Scholar:** Dr. Krutika J. Joshi  
   **Guide:** Dr. Rabinarayan Acharya, Dr. B Ravishankar, Dr. V.J. Shukla

5. **A Comparative Pharmacognostical, Physicochemical, Pharmacological Study of Moola and Panchanga of Kantakari (Solannum xanthocarpum Schrad & Wendl.) w.s.r. to its Kasa hara Karma**  
   **Scholar:** Dr. Manshukh S. Parmar  
   **Guide:** Dr. B.R. Patel, Dr. B Ravishankar, Dr. V.J. Shukla

6. **A Comparative Pharmacognostical and Phyto-pharmacological Assessment of Moola, Panchanga of Laghu Gokshura (Tribulus terrestris Linn.) and Brihat Gokshura (Pedalium murex Linn.) w.s.r. to its Mootral Karma.**  
   **Scholar:** Dr. Chandrika N. Methekar  
   **Guide:** Dr. Rabinarayan Acharya, Dr. B Ravishankar, Dr. V.J. Shukla

**EXTRA CURRICULAR ACTIVITIES:**

1. Six days botanical tour to Ratan Mahal Forest of Gujarat was conducted from 5th to 10th October, 2010. Total nine students and one faculty member took part in the programme.

2. Fourteen days academic tour [19th February to 4th March, 2011] to South India covering Western Ghats, Kottakal, Bangalore and Mysore with six students and one faculty was organized.

3. Attempts have been made to add new plants into the museum and garden as well. A list of the same is as follows.
<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>New Plants added to the museum</th>
<th>Sl. No.</th>
<th>New Plants added in to the herbal garden</th>
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<tbody>
<tr>
<td>1</td>
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<td>Sterculia foetida</td>
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<tr>
<td>2</td>
<td>Symphorema polyandrum Wight</td>
<td>2</td>
<td>Orthosiphon labiatus</td>
</tr>
<tr>
<td>3</td>
<td>Launaea sarmentosa (Willd)</td>
<td>3</td>
<td>Launaea sarmentosa (Willd)</td>
</tr>
<tr>
<td></td>
<td>Schultz-Bip.exKuntze</td>
<td></td>
<td>Schultz-Bip.exKuntze</td>
</tr>
<tr>
<td>4</td>
<td>Nelsonia Canescens (Lam) Spreng</td>
<td>4</td>
<td>Nelsonia Canescens (Lam) Spreng</td>
</tr>
<tr>
<td>5</td>
<td>Limnophila Rugosa Merr</td>
<td>5</td>
<td>Poinsinia</td>
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<tr>
<td>6</td>
<td>Limnophila heterophylla</td>
<td>6</td>
<td>Limnophila heterophylla</td>
</tr>
<tr>
<td>7</td>
<td>Croton roxburghi</td>
<td>7</td>
<td>Globa marentina</td>
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<td>8</td>
<td>Cissus rependa Vahl</td>
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<td>Cissus rependa Vahl</td>
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<tr>
<td>9</td>
<td>Holostema anurali</td>
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<td>10</td>
<td>Hymenodactylon febrifuga</td>
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<td>Hymenodactylon febrifuga</td>
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</table>
Introduction:

Department of Rasashastra and Bhaishajya Kalpana including Drug Research, the pioneer branch of Ayurveda for Drug Research is involved in drug development and standardization of single / compound formulations since past 50 years. Besides evolving in house SOPs to the Ayurvedic formulations; the department endeavors in revalidating and standardizing pharmaceutical procedures of Ayurvedic dosage forms mentioned in the classical scriptures of Ayurveda. The main objectives of the department are:

- To develop data on Standard Manufacturing Procedures of different Ayurvedic Formulations,
- To generate safety, toxicity profile of Ayurvedic formulations, particularly of Metal / Mineral based formulations.

Apart from the above, Department provides assistance to scholars from foreign nationals under short term Ayurveda courses and WHO nominated courses.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
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</thead>
<tbody>
<tr>
<td>Dr. PK Prajapati</td>
<td>Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>Dr. Biswajyoti Patgiri</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
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<tr>
<td>Dr. Galib</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu)</td>
</tr>
<tr>
<td>Dr. Prashant Bedarkar</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu)</td>
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Academic Activities: During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

<table>
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<tr>
<th>Activity</th>
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<tr>
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<td>Papers presented including Guest lectures</td>
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CLINICAL RESEARCH: Hospital Activities - General Data:

- No. of patients visited OPD: 13641
- Patients admitted in IPD: 00084
RESEARCH ACTIVITIES:

Ph.D. (Ayu.) RESEARCH PROJECT : Pre Submission

1. A study on “Shirisharishta” w.s.r. to Shelf life & it’s efficacy in Tamaka Shwasa:
   
   **Scholar:** Dr. Mundeep Jaiswal,  **Guide:** Prof. P.K. Prajapati,
   **Co-Guide:** Dr. B. Ravishankar

Ph.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

1. Standardization of Dashanga Yoga wsr to its anti inflammatory and anti arthritic activities.
   
   **Scholar:** Dr. Galib,  **Guide:** Prof. PK Prajapati,  **Co-Guide:** Dr. B Ravishankar.

2. Stability study of Vasa Avaloha prepared by Swaras & Kwatha and its effect on Tamaka Shwasa (Bronchial Asthma).
   
   **Scholar:** Dr. Ankit Gupta,  **Guide:** Prof. PK Prajapati,  **Co-Guide:** Dr. B Ravishankar.

3. Pharmaceutical Standardization of Rasa Karpura Drava and Rasa Karpura Malahara and their effect on Ksudra Kusta.
   
   **Scholar:** Dr. Neky Mehta,  **Guide:** Dr. BJ Patgiri,  
   **Co-Guides:** Prof. PK Prajapati, Dr. B Ravishankar.

4. Pharmaceutical Standardization and toxicity study of Rasamanikya.
   
   **Scholar:** Dr. K Srimannarayana,  **Guide:** Prof. PK Prajapati,  
   **Co-Guide:** Dr. B Ravishankar.

5. Role of Gandhaka Jarana in the preparation of Makardhwaja.
   
   **Scholar:** Dr. Sanjay Khedekar,  **Guide:** Prof. PK Prajapati,  
   **Co-Guide:** Dr. B Ravishankar.

6. Standardization of Swarna Makshika Bhasma, its toxicity and Anti-hyperglycemic activity.
   
   **Scholar:** Dr. Pavan Savalgi,  **Guide:** Dr. BJ Patgiri,  
   **Co-Guides:** Dr. B Ravishankar, Dr VJ Shukla.

   
   **Scholar:** Dr. Roshy Joseph,  **Guide:** Dr. BJ Patgiri,  **Co-Guide:** Dr. B Ravishankar.

8. Pharmaceutical and Pharmacological studies on Kanakbindvaristha W.S.R. to its efficacy on vicharchika.
   
   **Scholar:** Dr. Kinnari Dhruve,  **Guide:** Prof. PK Prajapati,  
   **Co-Guide:** Dr. B Ravishankar.

   **Scholar:** Dr. Pramod Yadav, **Guide:** Prof. PK Prajapati, **Co-Guide:** Dr. B Ravishankar.

10. An advanced study on Shirishavaleha prepared by Twak, Patra and Pushpa of Shirisha (Albizia lebbeck Benth.) and its effect on Tamaka Swasa (Bronchial Asthma).

    **Scholar:** Dr. Shyamalal Singh Yadav, **Guide:** Prof. PK Prajapati, **Co-Guide:** Dr. B Ravishankar.

11. Pre-Clinical Study of Shankha Vati prepared by two different methods.

    **Scholar:** Dr. Naveena, **Guide:** Dr. BJ Patgiri, **Co-Guide:** Dr. B Ravishankar.


    **Scholar:** Dr. Viroopaksha Gupta, **Guide:** Dr. BJ Patgiri, **Co-Guide:** Dr. B Ravishankar.


    **Scholar:** Dr. Prashanth Math, **Guide:** Prof. PK Prajapati, **Co-Guide:** Dr. B Ravishankar.

**Ph.D. in M.Pharma (Ayu.) / MSc (Med. Pl.) RESEARCH PROJECTS (In Progress):**


    **Scholar:** Hitaba Gohil, **Guide:** Prof. PK Prajapati, **Co-Guide:** Dr VJ Shukla.


    **Scholar:** Manish Vyas, **Guide:** Prof. P.K. Prajapati **Co-Guide:** Dr VJ Shukla.

3. Pharmaceutical development of herbal wound healing dosage forms.

    **Scholar:** Palak Vyas, **Guide:** Prof. P.K. Prajapati, **Co-Guide:** Dr VJ Shukla.


    **Scholar:** Vinay Sharma, **Guide:** Prof. P.K. Prajapati, **Co-Guide:** Dr VJ Shukla.
M.D. (AYU.) RESEARCH PROJECTS : (Completed)

Rasashastra Specialty:

1. Role of Shodhana in preparation of Tamra Bhasma with respect to its antihyperlipidemic activity.

   **Scholar** : Dr. Chandrashekhar Y Jagtap  
   **Guide** : Prof. PK Prajapati, 
   **Co Guides** : Dr. BJ Patgiri, Dr. VJ Shukla, Dr Ravishankar B.

Two samples of *Tamra Bhasma* were prepared in the study; one by following *shodhana* procedure and the other without *shodhana*. It was observed that, 3 *putas* are sufficient for *Marana of Shodhita Tamra*, while it was 7 *Putas* for *Ashuddha Tamra*. ICP-AES analysis revealed that *Tamra Bhasma* prepared from *Shodhita Tamra* contains 56.42% copper and 23.06% sulphur, while *Ashuddha Tamra Bhasma* contains 44.91% copper and 45.35% sulphur. XRD analysis revealed the presence of copper sulphate hydroxide \([\text{Cu}_4 \text{SO}_4 (\text{OH})_6]\) and copper sulphide (CuS) in respective samples. SEM images showed particle size less than 2 m in *Shodhita Tamra Bhasma*. The average particle size of both samples was 28.70 m and 64.04 m respectively. No mortality was observed in acute toxicity even up to 180 times higher than the therapeutic equivalent dose (5.5 mg/kg). In subchronic toxicity study, overall activity profile of test drugs showed that *Tamra Bhasma* prepared from *Shuddha Tamra* didn't produce significant toxicity at the therapeutic dose level even after administration for 45 days. In contrast to this, *Tamra Bhasma* prepared from *Ashuddha Tamra* showed toxic symptoms even at therapeutic doses and found to be highly toxic at higher dose levels. Significant anti-hyperlipidemic activity was found in *Tamra Bhasma* prepared from *Shuddha Tamra* which was almost absent *Ashuddha Tamra Bhasma*.

2. A study of Shadaguna Balijarita Makaradhwaja prepared by Ashtasamskarita Parada and its effect on Madhumeha.

   **Scholar** : Dr. Shraddha N Dhundi,  
   **Guide** : Prof. PK Prajapati, 
   **Co-Guides** : Dr. BJ Patgiri, Dr. Ravishankar B., Dr. V J Shukla

An average of 8.8% yield was noticed in Triguna Makaradhwaja [TM], while it was 6.7% in Shadaguna Makaradhwaja [SM]. Average time taken for flame in TM was 3 hrs and in SM, it was 5 hrs. The particle size of TM and SM were in between 10-50μm. XRD pattern of TM and SM showed peaks only due to mercuric sulphide. Both of them have formula of HgS and hexagonal crystal structure. ICPAES analysis revealed the presence of 7.2976 ppm gold in TM and 663.14 ppm in SM apart from other trace elements like copper, iron and lead. FTIR analysis indicated presence of organic compounds in the final products. EDAX studies revealed Mercury (79.91%), Sulphur (20.09%) in TM, while in SM Mercury (81.73%) Sulphur (18.27%). Immune-modulatory study in experimental animals suggested that, TM has better immune stimulant effect in comparison to SM. Clinical trials were carried-out with TM, SM and Guduchi Ghana. The drugs were given orally in capsule form for four weeks with a follow up for another four weeks. Significant relief in all signs and symptoms were found in both drug treated groups. Highly significant decrease in blood glucose level was found in groups with TM and SM. The effect was significant in comparison to Guduchi Ghana.
3. Pharmaceutical Standardization of Sameera Pannaga Rasa and its effect on Tamaka Shwasa (Bronchial Asthma).

Scholar: Dr. Mayur Mashru  
Guide: Prof. PK Prajapati,  
Co-Guide: Dr. Galib, Dr. V.J. Shukla, Dr. Ravishankar B.

Sameera Pannaga Rasa [SPR] was prepared with and without Manahshila in EMF and Valuka Yantra. SPR with Manahshila in EMF yielded 65.2%. No significant differences could be found in the batches prepared in Valuka Yantra. SPR without Manahshila [Ubhayastha] prepared in EMF fulfilled all the chief desired characters of the product. If Sameera Pannaga Rasa with Manahshila Ubhayastha product is to be made in EMF, the temperature should not exceed 570°C. XRD pattern of Galastha SPR indicates presence of HgS, where in SPR with Manahshila showed HgS with micro levels of As₂O₃. ICPAES analysis showed Mercury and Arsenic of different percentages. No toxicity was observed on gross level in acute studies and LD₅₀ was observed as >971.67mg/kg. SPR exhibited significant anti-inflammatory, anti-tussive activities and moderate anti-spasmodic activity against histamine induced contraction in guinea pig ileum. A double blind clinical study with trial drugs was carried out on 52 patients of Tamaka Shwasa. No direct or indirect drug related adverse effects were noticed during the study. Registered patients were administered with one capsule [30mg SPR + 220mg starch] twice daily with Nagavallidala as Sahapana for 28 days with follow-up of 14 days. SPR showed significant results.

Bhaishajya Kalpana Specialty:

1. Shelf life study on Shatadhauta Ghrita and Panchavalkala Siddha Shatadhauta Ghrita wsr to its wound healing activity.

Scholar: Dr. Mayur Vilas Barve  
Guide: Dr. Galib  
Co-Guide: Prof PK Prajapati, Dr. V.J. Shukla, Dr. Ravishankar B.

Shatadhauta Ghrita and Panchavalkala Siddha Shatadhauta Ghrita were prepared by three different methods viz., in steel vessel, copper vessel which are traditional methods and by using Shatadhauta Ghrita Yantra. In every method, Ghrita was actually washed for 100 times and samples of 25th, 50th, 75th and 100th washes were separated for analysis. Pharmaceutically, no difference in the preparation of Shatadhauta Ghrita was seen in steel and copper vessels. Yantra may prove beneficial in preparing Shatadhauta Ghrita. No significant changes were observed in successive washes on the available analytical parameters of both the samples. Shatadhauta Ghrita is acceptable till nine months where as Panchavalkala Siddha Shatadhauta Ghrita is acceptable till six months from the date of manufacturing. Panchavalkala are having free radical scavenging activity. But their Super-oxide scavenging activity (SOD) and ferrous reducing power (FRP) is seen in Panchavalkala as a whole only. In the experimental part of the study, the test formulations found to have wound healing activity in excision wound model, the difference of which were statistically insignificant. The trial drugs shown significant relief on all the signs and symptoms of Sadyo Vrana. Complete cure was found in 71.42% with Shatadhauta Ghrita, 92.86% with Panchavalkala Siddha Shatadhauta Ghrita and 40% in Povi-Iodine group.
M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

Rasashastra Speciality:

1. Pre-clinical study of Tribhuvan Kirti Rasa prepared by two different species of Vatsnabha.
   
   **Scholar:** Dr. Neelesh Khandelwal, **Guide:** Prof. PK Prajapati, 
   **Co-Guides:** Dr. B. Ravishankar, Dr. VJ Shukla.

2. A pharmaceutical standardization of Kukkutanda Tvaka Bhasma by two different methods and its effect on Asthikshaya.
   
   **Scholar:** Dr. Krishna Fanasiya, **Guide:** Dr. BJ Patgiri, 
   **Co-Guides:** Prof. PK Prajapati, Dr Shilpa Donga, Dr. VJ Shukla.

3. Safety and efficacy study on Swarna Prashana drops prepared by Swarna Bhasma and Swarna Lavana.
   
   **Scholar:** Dr. Anupriya, **Guide:** Dr. BJ Patgiri, 
   **Co-Guides:** Prof. PK Prajapati, Dr. VJ Shukla.

4. Role of media in preparation of Laghu malini Vasanta Rasa.
   
   **Scholar:** Dr. Manisha Walunj, **Guide:** Prof. PK Prajapati, 
   **Co-Guides:** Dr. BJ Patgiri, Dr. VJ Shukla.

5. A study on Kampillaka Malahara and its clinical efficacy on Ksudra Kusta (skin disorders).
   
   **Scholar:** Dr. Kanubhai Pandya, **Guide:** Dr Galib, 
   **Co-Guides:** Prof. PK Prajapati, Dr. VJ Shukla.

Bhaishajya Kalpana Speciality:

1. The effect of two different dosage forms of Guduchi i.e. Satva and Ghana w.s.r. to anti hyperglycemic effect on Madhumeha (Diabetes Mellitus).
   
   **Scholar:** Dr. Rohit Sharma, **Guide:** Prof. P.K. Prajapati, 
   **Co-Guides:** Dr. B. Ravishankar, Dr. VJ Shukla.

2. Pharmaceutical Standardisation Amalki Rasayana W.S.R. to its Rasayana effect.
   
   **Scholar:** Dr. Jignesh R Rajani, **Guide:** Dr. Galib, 
   **Co-Guides:** Prof. PK Prajapati, B. Ravishankar, Dr. VJ Shukla.

3. A study on the concept of Churna Kriya on Rasayana Churna and its efficacy on Amavata with Kupilu (Strychnous nux-vomica Linn.).
   
   **Scholar:** Dr. Priyanka Verma, **Guide:** Dr. BJ Patgiri, 
   **Co-Guides:** Dr. Galib, Dr. VJ Shukla.
4. Evaluation of Naveena and Purana Guggulu w.s.r. to their anti hyperlipidaemic (medohara) effect.

Scholar: Dr. Kruti Y Vyas, Guide: Prof. PK Prajapati, Co-Guides: Dr. Galib, Dr. VJ Shukla.

M. PHARMA (AYU.) RESEARCH PROJECTS (Completed):

1. Pharmaceutical Development of Herbal Nutraceutical Jam w.s.r. to its Short Term Stability Studies.

Scholar: Saurabh Kulkarni, Guide: Dr Galib, Co-Guide: Dr. VJ Shukla.

Looking at the emerging market in the field of nutraceuticals, an attempt was made to utilize the therapeutic attributes of few herbs with Nutraceutical properties and convert them into a jam which will be more palatable, elegant and can be easily administered to the consumers of all age groups. The focus of the study was on masking the taste of the herbal ingredients which are mainly astringent and to check the short term stability of the jam. It was concluded that the pharmaceutical composition in the form of jam can be a good option as a nutraceutical with incorporation of herbal ingredients. The jam prepared with Kwatha and pulp has given the best consistency. It was also found to be masking the bitterness of the ingredients. HPTLC wave lengths of the finished product, Kwatha and Amalaki extracts were matching to some extent. Short term stability studies revealed that, the jam was stable for over a period of 4 weeks without any changes in pH, syneresis, appearance and consistency. Microbial over load was analysed as per the guidelines, which was found to be in prescribed limits.

2. Pharmaceutical development and evaluation of Herbal oral gel.

Scholar: Chirag Makwana, Guide: Dr BJ Patgiri, Co-Guide: Dr. VJ Shukla.

In Ayurveda, different types of kalpanas have been emphasized for oral problems such as Kavala, Gandusha, Pratisarana, Jihvanirlekhana etc. But, till date no work has been carried out to convert these dosage forms into a new dosage form. Considering this, it was attempted to convert the classical forms into gel, paste etc. forms which are ready to use, easily applicable form and convenient to the consumers. In the present work, different batches of oral gel were prepared & the formula was finalized considering the ideal gel like properties like consistency, appearance and stability etc. Bacterial growth of herbal oral gel was under prescribed limits. TLC & HPTLC studies showed similar peaks with that of raw material.

3. Pharmaceutical Development of liquid and gel of Panchavalkala w.s.r. to their antimicrobial activity.

Scholar: Palak Vyas, Guide: Dr Galib, Co-Guides: Prof PK Prajapati, Dr. VJ Shukla.

In present study, an attempt has been made to prepare Antiseptic Liquid and Hand wash by using Panchavalkala Kwatha as base. It was observed that, in the preparation of antiseptic hand wash, sodium lauryl ether sulfate (SLES) is more convenient than sodium lauryl sulfate (SLS). Addition of foam boosters like Tri ethanol amine (TEA) is essential in the preparation of hand washes. HPTLC profiles of Panchavalkala kwatha and finished products were found to have similar peaks, which indicate the presence of
similar components in the end products. Analysis on microbial over load is found to be within the prescribed limits of WHO. Antimicrobial activity couldn't be evaluated in maximum concentrations of 900 (mcg/ml) of the anti septic liquid. It may be evaluated in further concentrations. Hand wash in gel form showed significant anti bacterial activity, in few cases better than the standard drug. The same dosage was failed on exerting anti fungal activity.

4. Pharmaceutical development and analytical study on Lodhradi Lepa.

Scholar: Nirav Vaghasiya, Guide: Dr BJ Patgiri, Co-Guide: Dr. VJ Shukla.

Lodhradi Lepa from Sharangdha Samhita has been attempted to convert into an elegant dosage form for its use in Acne. Kwatha of Lodhradi Lepa was found to be suitable and providing ideal characters of like Spreadability, appearance, stability etc. Bacterial growth of Lodhradi cream was under prescribed limits.

5. A Pharmaceutical and Analytical study of Herbal Shampoo w.s.r. to its Anti-microbial activity.

Scholar: Kashyap Bhut, Guide: Prof PK Prajapati, Co-Guide: Dr. VJ Shukla.

Present day shampoos usually contain agents which are synthetic in nature and may lead in manifesting some inconveniency. Here an attempt has been made to add certain herbal extracts to the bases of shampoos, with an intention to provide additional therapeutic effects. Accordingly, various types of shampoos were prepared with different ingredients. Out of them, one formula was selected as it fulfilled all the criteria of an ideal shampoo. Two different surfactants were used in the preparation of shampoo viz SLS and SLES. Among them SLES is more preferable than SLS because during the storage of shampoo, sedimentation of SLS occurred. As methika itself acts as a conditioner, condensing agents like Lecithin, Polymeric substances were not used. This may be due to the Mucilage content in Methika. When the Kwatha is added in the formula, the amount of thickening agent to be added is increased by 1 to 2%, this is because, Kwatha decreases the consistency. In shampoo prepared by heating process, special attention must be given to maintain the temperature. This is because chances of burning of SLES would occur which is not desirable.

M. PHARMA (AYU.) RESEARCH PROJECTS (In Progress):

1. Pharmaceutical Development of Herbal Mouth Wash.
   Scholar: Kunal Gohil, Guide: Prof. PK Prajapati, Co-Guide: Dr. VJ Shukla.

2. Effect of Shodhana on Jayapala Beeja.
   Scholar: Mahesh Sharma, Guide: Dr BJ Patgiri, Co-Guide: Dr. VJ Shukla.

   Scholar: Sachin Bharmer, Guide: Dr Galib, Co-Guide: Dr. VJ Shukla.

EXTRA CURRICULAR ACTIVITIES :

1. Pharmacy Training: The Ph.D. (Ayu.) scholars, M.D (Ayu.) scholars of 2nd & 3rd Year and M. Pharma (Ayu.) scholars are engaged in daily duties at Pharmacy in different batches to provide an exposure to large scale manufacturing of different kalpanas like Kharaliya Rasayana, Kupipakwa Rasayana, Parpati, Bhasma, Sneha kalpana etc.
at commercial scale. In addition to this a number of practicals have been carried out by the scholars in the departmental laboratory. Different practicals like Swarasa (25), Kwatha (24), Avaleha (16), Ghana, Guggulu, Vati (31), Lepa, Malahara (21), Sandhana (19), Shodhana (36), Arka (16), Kupipakva (28), Ksara, Masi, Lavana (08), Bhasma (28), Parpati (15), Sneha (56) and some other (62) practicals have been carried out. In addition, SOPs for large scale manufacturing of Panchamrita Parpati, Rasa Sindhura and Malla Sindhura have been developed in the pharmacy during the current academic year.

2. **Academic tour:** With an intention to update regarding the current approaches, developments and to provide greater exposure in research sector, an academic tour has been organized for PG scholars of the Department of Rasa Shastra & Bhaishajya Kalpana. The first tour was organized covering different pharmacies located in Gujarat state during 6th to 12th June 2010 and units like Unjha Pharmacy, Prashant Pharmacy, Gayathri Pharmacy, Govt. Pharmacy of Rajpipla; Aspha Pharmacy; SSR Trust’s College of Pharmacy, Silvasa; Zandu Pharmaceuticals, Vapi; Konark (Herbals and Health Care), Nani Daman etc. have been visited. The second tour was organized during 11th to 19th November 2010 covering pharmacies located in North East part of India. Industries like Emami and Ozone have been visited during the period.

3. **Contribution in the preparation of thesis drugs of other Departments:** In addition to the routine practicals, the Dept. is involved in preparing pilot batches of theses drugs for PhD and PG scholars' of other departments at small and large scale. A brief list is as follows:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Quantity</th>
<th>Scholar</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tagara Arka</td>
<td>500 ml</td>
<td>Dr. Ranjana Arya</td>
<td>Shalya Tantra</td>
</tr>
<tr>
<td>Jatamamsi Arka</td>
<td>500 ml</td>
<td>Dr. Ranjana Arya</td>
<td>Shalya Tantra</td>
</tr>
<tr>
<td>Tagara &amp; Jatamamsi Arka</td>
<td>500 ml</td>
<td>Dr. Ranjana Arya</td>
<td>Shalya Tantra</td>
</tr>
<tr>
<td>Kalyanaka Ksara</td>
<td>10 Kg</td>
<td>Dr. Rachana Gupta</td>
<td>Prasooti Tantra</td>
</tr>
<tr>
<td>Panchagavya Ghrity</td>
<td>20 Kg</td>
<td>Dr. Nisha Parmar</td>
<td>Maulika Siddhanta</td>
</tr>
<tr>
<td>Kshira Shatpala Ghrity</td>
<td>20 Kg</td>
<td>Dr. Anjalai Mali</td>
<td>Pancha Karma</td>
</tr>
<tr>
<td>Jyotishmati Granules</td>
<td>03 Kg</td>
<td>Dr. Manu</td>
<td>Kaya Chikitsa</td>
</tr>
<tr>
<td>Gokshuru Granules</td>
<td>500 g</td>
<td>Dr. Thirunavukkarasu</td>
<td>Kaya Chikitsa</td>
</tr>
<tr>
<td>Astangavaleha</td>
<td>02 Kg</td>
<td>Dr. Aравind Dubey</td>
<td>Kamara Bhritya</td>
</tr>
<tr>
<td>Vyaghi Haritaki Avaleha</td>
<td>01 Kg</td>
<td>Dr. Lamin</td>
<td>Shalakya Tantra</td>
</tr>
<tr>
<td>Haridra Khanda</td>
<td>15 Kg</td>
<td>Dr. Varsha Chaudhary</td>
<td>Shalakya Tantra</td>
</tr>
<tr>
<td>Ashwagandha Ghrta</td>
<td>15 Kg</td>
<td>Dr. Hiral Brahmbhat</td>
<td>Shalakya Tantra</td>
</tr>
<tr>
<td>Triphala Taila</td>
<td>30 Kg</td>
<td>Dr. Gyanendra Shukla</td>
<td>Pancha Karma</td>
</tr>
</tbody>
</table>

4. **Providing Technical Assistance:** During the current academic year; assistance has been provided to Dept. of Veterinary Medicine, College of Veterinary Science & Animal Husbandry, Anand Agricultural University, Anand, Gujarat in preparing drugs for animal experiments.

5. **TKDL Project:** Involved in screening of the different formulations being received from TKDL. More than 400 formulations have been screened in the current academic year.

6. **Revision of Syllabus for CCIM:** Involved in revision of First PG syllabus by CCIM. Also associated in revising syllabus of Final PG for Rasa Shastra & Bhaishajya Kalpana, PG Diploma courses etc.

* * * * *
Introduction:
The main objectives of Kayachikitsa department are to impart teaching, training and research to the Ph.D. (Ayu.) and M.D. (Ayu.) scholars in the specialty of Kayachikitsa. The department also provides treatment facilities and consultancy services to the patients attending OPD and IPD of the Kayachikitsa and Vajikarana sections. In addition, it organizes training programmes for the students of foreign countries who visit the institute under the MoU signed with Gujarat Ayurved University; other institutes under WHO collaboration; and for three month introductory course of Ayurveda.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. H.M. Chandola</td>
<td>Professor</td>
<td>MD (Ayu), PhD, PGDIPR, D.Yog</td>
</tr>
<tr>
<td>Dr. A.R. Dave</td>
<td>Associate Professor</td>
<td>MD (Ayu), PhD, MRAV</td>
</tr>
<tr>
<td>Dr. Mandip Kaur</td>
<td>Assistant Professor</td>
<td>MD (Ayu), PhD</td>
</tr>
</tbody>
</table>

Academic Activities: During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. M.D. (Ayu) Students</td>
<td>011</td>
</tr>
<tr>
<td>2. Ph.D. (Ayu) Scholars</td>
<td>011</td>
</tr>
<tr>
<td>4. Ph.D. (Ayu) Degree : Awarded</td>
<td>007</td>
</tr>
<tr>
<td>5. Theory &amp; Clinical classes conducted for 1st year M.D.(Ayu)</td>
<td>180</td>
</tr>
<tr>
<td>6. Theory &amp; Clinical classes conducted for 2nd &amp; 3rd year M.D.(Ayu)</td>
<td>140</td>
</tr>
<tr>
<td>7. Departmental Seminars conducted</td>
<td>006</td>
</tr>
<tr>
<td>8. Papers published</td>
<td>030</td>
</tr>
<tr>
<td>9. Papers presented including Guest lectures</td>
<td>027</td>
</tr>
</tbody>
</table>

CLINICAL RESEARCH: Hospital Activities - General Data:

- No. of patients visited OPD: 28061
- Patients admitted in IPD: 00323
- Patients treated in Vajikarana OPD: 02582
- Participation in Sarvaroganidan chikitsa camps: 00015

RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Pre-Submission)

1. A clinico-experimental study on the efficacy of Amalakayasa Rasayana in the management of Premature Aging

Scholar: Dr. S.M.S. Samarakoon
Guide: Prof H.M. Chandola
Co-Guide: Dr. B. Ravishankar

For the present study total 120 patients were registered, out of which 103 patients completed full course of treatment. 51 patients in group A were treated with Amalakayasa Rasayana in the dose of 2 capsules (500mg) three times a day, while 52 patients in group B treated with Placebo (Starch) capsule in the same dose. Total duration of the treatment was 10 weeks with follow up of one month. Study revealed that; Amalakayasa Rasayana provided positive results in various pathological aspects of premature ageing. It also reversed deranged features of Dosha, Dhatu and Srotas to a great extent. Phytochemical study witnessed that Amalakayasa Rasayana was a good source of antioxidants and it possessed potent free radical scavenging activity and reducing power. Pharmacological study revealed that Amalakayasa Rasayana has anti-stress and adaptogenic activities.

2. A clinical Study on Senile Memory Impairment and its management with Guduchyadi Medhya Rasayana

Scholar: Dr. R.D. Hemkanthi Kulatunga Co-Guide: Prof. M.S. Baghel

Guide: Dr. A.R. Dave

The role of Guduchyadi Medhya Rasayana was attempted to evaluate on Senile Memory Impairment. 43 patients (out of 73 registered) in Group A received Guduchyadi Medhya Rasayana in granule form in the dose of 5 gram thrice in a day with water, while 56 patients (out of 65 registered) in group B received Sharkeradi granules in the dose of 3 gram thrice a day with water. The duration of treatment was 3 months in both the groups. Study revealed that Guduchyadi Medhya Rasayana provided statistically highly significant improvement on Short Memory Impairment (62.59%) as well as Long Memory Impairment (59.71%), in Senile Memory Impairment at the level of p<0.001. On biochemical parameters Guduchyadi Medhya Rasayana provided highly significant decrease (p<0.01) in serum cholesterol, serum triglyceride, LDL, VLDL while significant decrease (p<0.05%) in blood urea (13.80%) and serum Acetylcholine Esterase (3.67%) which was within normal limit. It has shown good Memory enhance activity, Cognitive enhance activity, Anti depressant, Anti stress and Anxiolytic potentials. Based on these activities, possibly, Guduchyadi Medhya Rasayana has provided better improvement in comparison to the control group.

Ph.D. RESEARCH PROJECTS: (In progress)

1. A clinical study on the management of Diabetic Polyneuropathy with Dashamooladi Rasayana Compound

Scholar: Dr. Niranjan. Y Guide: Prof. M.S. Baghel

Co-Guide: Dr. M.A. Santwani

2. Evaluation of the effect of Vara Asanadi Kvatha in Kapha Medo Margavarana w.s.r. to hyperlipidemia (A clinico- experimental study)

Scholar: Dr. Anju P. Ramachandran Guide: Prof. H.M. Chandola

Co-Guide: Dr. B. Ravishankar
A clinico-experimental study to evaluate the therapeutic efficacy of *curcuma neilgherrensis* (*wight*) in the management of Madumeha (Type 2 Diabetes mellitus)

**Scholar:** Dr. Shyamprasad M  
**Co-Guide:** Dr. B. Ravishankar  
**Guide:** Prof. H.M. Chandola

A Double Blind clinical study of Gokshura (*Tribulus terrestris* Linn.) in Kshina Shukra (Oligozoospermia)

**Scholar:** Dr. M.S. Thirunavukkarasu  
**Co-Guide:** Dr. A.B. Thakar  
**Guide:** Prof. M.S. Baghel

A clinical study of Geriatric Anemia (Pandu in old age) and its management with Amrutarnava Rasa and Punarnava Mandoora

**Scholar:** Dr. Madhuri G. Vyas  
**Guide:** Dr. A.R. Dave

A clinical study on Kshina Shukra (oligospermia) and its management with Vidaryadi Yoga

**Scholar:** Dr. Ajantha  
**Co-Guide:** Dr. D.B. Jadeja  
**Guide:** Prof. H.M. Chandola

A clinical study on radio therapy / chemotherapty induced side effects of head & neck malignancies and their management by Tulsi - Amala -Yashthi Ghrita

**Scholar:** Dr. Debdas Datta  
**Co-Guide:** Dr. S.K. Agrawal  
**Guide:** Prof. H.M. Chandola

Clinical evaluation of *Vyaghri Haritaki* in the management of Chronic Bronchitis

**Scholar:** Dr. Jaiprakash B. Ram  
**Guide:** Prof. M.S. Baghel

Evaluation of efficacy of Jyotishmati in the management of Jarajanya Smriti Hrasa w. s. r. Senile Dementia

**Scholar:** Dr. Manu R  
**Guide:** Dr. A.R. Dave

Role of Ayurvedic management as chemo protective Adjuvant in Chemotherapy induced side effects and Quality of Life (QoL) inpatients of cancer

**Scholar:** Dr. Jatan Mehta  
**Guide:** Dr. A.R. Dave

A Comparative study of Navayasa Churna and Nisha Lauha in the management of Pandu w. s. r. to Iron Deficiency Anemia

**Scholar:** Dr. Hetal D. Vyas  
**Guide:** Dr. A.R. Dave
M.D. (AYU.) RESEARCH PROJECTS: (Completed)

7. Study on Apathya Nimittaja Prameha (type-2 Diabetes) and its management with Saptarangyadi Ghanavati (A Clinico-Experimental Study)

Scholar: Dr. Kanwar Samrat Singh  
Guide: Prof. H.M. Chandola  
Co-Guides: Dr. B. Ravishankar, Dr. Mandip Kaur

For the present study, 75 patients of type-2 Diabetes mellitus were registered and grouped in to two groups i.e. 39 in group A and 36 in group B. Out of these, the 67 patients completed the treatment, 36 patients in group A and 31 in group B. In Group A Saptarangyadi Ghanavati was given in the dose of 5 Vati (200 mg) thrice daily with luke warm water after meal to newly detected cases of type-2 diabetes mellitus and in group B, Saptarangyadi Ghanavati was given in addition to the ongoing modern medicine in chronic cases of type - 2 diabetes mellitus in the same dose. The duration was 2 months in both the groups. Both the groups were equally effective in all the cardinal and associated symptoms except in prabhuta mutrata in which group A was more effective. In FBS and PPBS parameters, both the groups showed statistically significant reduction. Serum insulin showed statistically significant increase in post prandial levels and statistically insignificant increase in fasting levels in Group B (n-6). Statistically significant reduction in Serum HbA1c was also reported in group A (n-6). Experimental study showed that the test drug Saptarangyadi Ghanavati possesses significant anti-diabetic effect and is comparable with that of glibenclamide. It also produced moderate hypoglycemia in normoglycemic animals and also attenuated glucose over load induced hyperglycemia.

8. A Clinico-Experimental study on Sandhivata vis-a-vis Osteo-Arthritis and its management with Boswella serrata Resin (Shallaki).

Scholar: Dr. Pradeep Kumar Gupta  
Guide: Prof. H.M. Chandola  
Co-Guide: Dr. B. Ravishankar

Total 56 patients with signs and symptoms of Sandhivata (OA) were grouped in to two. 49 patients completed the course of treatment (26 patients in group A and 23 in Group B). Patients in Group-A were treated with Shallaki capsule 6gm in three divided doses with Luke warm water after meal for 2 months, whereas in group-B the above regimen was given along with local application of Shallaki ointment. Both the groups provided statistically highly significant improvement in cardinal symptoms. Overall assessment suggests that group A provided better effect than group B, which might be due to less chronicity patients of Sandhivata in group-A.

9. Effect of Shalmalyadi Lepa and Guducyadi Vati in the Management of Yuvanapidika w.s.r. to Acne.

Scholar: Dr. Piyush Pampaniya  
Guide: Dr. Darshana Pandya

Total 50 patients suffering from Yuvanapidika were registered and divided into two groups i.e. 25 in each group. Out of these, 44 patients completed the treatment (22 patients in each group). Patients of group A were advised to apply Shalmalyadilepa externally, twice in a day with milk on the affected area, while the patients of Group B were given Guduchayadivati 4 tablets (500mg each) with water thrice in a day along with local application of Shalmalaydi lepa. Duration of treatment was one month in both the
groups. While comparing the effect of both the groups, it was found that group A showed better effect in Daha and Vranavastu. Whereas, in rest of the symptoms (number of Pidika, area occupied by Pidika, Srava, Kandu, Paka, Vedna, Medogarbhtva, Vaivarnya) Group B provided better results.

M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

1. A Clinical Study on Sandhigatavata (Osteoarthritis) and its management with Dashmula Ghrita and Nirgundi Taila
   
   Scholar: Dr. Dhaval M. Dholakiya  
   Guide: Prof. H.M. Chandola

2. A clinical study on Shukragata Vata w.s.r. to Premature Ejaculation and its management by Stambhankara Yoga
   
   Scholar: Dr. Prasad Kulkarni  
   Guide: Prof. H.M. Chandola

3. Clinical evaluation of Simhanada Guggulu and Brihata Saindhavadi Tailam in the management of Rheumatoid Arthritis
   
   Scholar: Dr. Pravin Kharadi  
   Guide: Dr. A. R. Dave

4. A comparative clinical study of Yavadi Ghanavati and Guduchyadi Ghanavati in the management of Amlapitta
   
   Scholar: Dr. Aboli B. Patil  
   Guide: Dr. A. R. Dave

5. A comparative clinical study of Asanadi Ghanavati and Gomutra-Haritaki Vati in Kapha Medo Margavarana w.s.r to Hyperlipidemia
   
   Scholar: Dr. Shivam G. Joshi  
   Guide: Prof. H.M. Chandola  
   Co-Guide: Dr. A. R. Dave

6. Evaluation of Parasikayavanyadi Capsule in the management of Anidra w.s.r. to Insomnia
   
   Scholar: Dr. MPSKR Muthugala  
   Guide: Dr. Mandip Kaur  
   Co-Guides: Prof. H.M. Chandola, Dr. A.R. Dave

7. A Clinico-experimental study on Triphaladi Granules In Apathyanimittaja Prameha (Type-2 Diabetes)
   
   Scholar: Dr. Ankush Gunjal  
   Guide: Prof. H.M. Chandola  
   Co-Guide: Dr Mandip Kaur

   
   Scholar: Dr. Shaikh Imtiyaz,  
   Guide: Dr. A.R. Dave
   Co-Guides: Prof. H.M. Chandola, Dr Mandip Kaur
EXTRA CURRICULAR ACTIVITIES:

**Radio Talk:** "Budhape ki samasyao me Ayurved", Hindi Varta, by Prof. HM. Chandola, All India Radio, Rajkot, on 11-11-2010. 8.50 am to 9.00 am

**Awards received by the Faculty member/Scholars of Department:**

- Dr. A. R. Dave was awarded “Best Teacher Award” by All India PG Association, New Delhi in September 2010.
- PG Scholars of the Dept. received “Ayurveda Seva Puraskar-2010” by All India P.G. Association, New Delhi in September 2010.
- Astavaidyan ET Neelakandhan Mooss Memorial Award for the best thesis presentation in the Junior category “Scope of Dasha Vidha Pariksha in present clinical practice” to Dr. Damyanthie KPD, Dr. Mandip Kaur on 12.7.2010.
- Dr Niranjani, Prof. MS Baghel received Best Paper Presentation for “Diabetic Podiatry and its appraisal in Ayurveda” during Swarnim National Seminar on Life style disorders challenges and management through Ayurveda “Ayurmission 10” held on November 2010.
- Dr Ajantha received First Prize for his paper Presentation entitled “Ayurvedic Clinical Dermatology - Success story repeats” at IPGT & RA Jamnagar in CME on “Skin disease and Dental hygiene” organized by Himalaya health care held on 05.02.11.

**Faculty as Experts:**

1. The faculty of the department served as internal experts for Kayachikitsa in Expert Group Meeting-1 WHO - APW project on “Standardization of Clinical Terminologies in Ayurveda”, at the institution from 23rd March to 24th March, 2011.


3. Faculty of the department also worked as Coordinator for Clinical Training programme for one month for foreigner’s students from Israel, Rediman college of Complimentary Medicines, Israel and Three month introductory course, organized by IPGT&RA and International Centre for Ayurvedic Studies, Jamnagar.

4. Prof HM Chandola is nominated as member:
   - Advisory Board of Desh Bhagat Ayurvedic College & Hospital, Mandi Gobindgarh (Punjab),
   - Member, Board of Kayachikitsa, Gujarat Ayurved University, Jamnagar,
   - Chairman, Institutional Ethics Committee, M.P.Shah Medical College, Jamnagar.
   - Committee to evolve modules for recognition of the courses of RAV by the Gujarat Ayurved University.
**Introduction:**

The department provides theoretical and practical training to the MD & PhD scholars in the subject of Panchakarma and PhD scholars in Manasa Roga. Collaborative intensive research is being carried out by the department particularly on standardization of different Panchakarma procedures. It also provides Panchakarma and allied therapies to patients at OPD and IPD levels in the Hospital. Department is running Panchakarma Technician Course successfully since last two years. Department conducted teaching and practical training of Panchakarma for foreign students from various institutes having MOU with Gujarat Ayurved University and other foreign scholars who visit the institute under WHO collaboration, under three months introductory course of Ayurveda, internees of BAMS foreigners course etc. The faculty members are also extending their clinical services in the remote rural areas and through satellite clinics as per the direction of the authority.

**Teaching Staff of the Department:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Prof. VD Shukla</td>
<td>Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>2 Dr. Anup Thakar</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>3 Dr. Santosh Kumar Bhatt</td>
<td>Asst. Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>4 Dr. Nilesh N. Bhatt</td>
<td>Panchakarma Physician</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
</tbody>
</table>

**Academic Activities** During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 M.D. (Ayu) Students</td>
<td>018</td>
</tr>
<tr>
<td>2 Ph.D. (Ayu) Scholars</td>
<td>010</td>
</tr>
<tr>
<td>3 Panchakarma Technician Scholars</td>
<td>010</td>
</tr>
<tr>
<td>4 Theory classes conducted for 1st year M.D.(Ayu)</td>
<td>055</td>
</tr>
<tr>
<td>5 Theory classes conducted for 2nd &amp; 3rd year M.D.(Ayu)</td>
<td>169</td>
</tr>
<tr>
<td>6 Departmental Seminars conducted</td>
<td>016</td>
</tr>
<tr>
<td>7 Papers published</td>
<td>007</td>
</tr>
<tr>
<td>8 Papers presented including Guest lecturers</td>
<td>020</td>
</tr>
</tbody>
</table>

**CLINICAL RESEARCH: Hospital Activities - General Data:**

- No. of patients visited OPD: 27159
- Patients admitted in IPD: 00794
- Medical Camps organized [Osteoporosis / HTN]: 00002
- Participation in *Saarvaroganidan chikitsa* camps: 00009
Panchakarma: In the year 2010 – 11, the following procedures were carried out in the Panchakarma Department.

<table>
<thead>
<tr>
<th>Karma</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Snehana:</strong> Abhyanga</td>
<td>14925</td>
<td>20075</td>
</tr>
<tr>
<td><strong>Swedana</strong></td>
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<td>19882</td>
</tr>
<tr>
<td><strong>Vamana</strong></td>
<td>00044</td>
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</tr>
<tr>
<td><strong>Virechana</strong></td>
<td>00164</td>
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</tr>
<tr>
<td><strong>Basti</strong></td>
<td>02203</td>
<td>02464</td>
</tr>
<tr>
<td><strong>Sthanika Bahya Vasti</strong></td>
<td>00686</td>
<td>00697</td>
</tr>
<tr>
<td><strong>Raktamokshana</strong></td>
<td>00041</td>
<td>00003</td>
</tr>
<tr>
<td><strong>Nasya</strong></td>
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</tr>
<tr>
<td><strong>Murdha Taila</strong></td>
<td>00318</td>
<td>00557</td>
</tr>
<tr>
<td><strong>Rukshana</strong></td>
<td>00110</td>
<td>00022</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>34128</td>
<td>45191</td>
</tr>
</tbody>
</table>

RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Submitted)

Panchakarma Specialty:

1. A comparative study of Virechana and Jalauka Avacharna Karma (Leech Therapy) in Ekakustha w.s.r. to Psoriasis.

   **Scholar:** Dr. Akhil Nath Parida
   **Guide:** Prof. VD Shukla

2. A Comparative study of Kshara Basti and Matra Basti in the management of Amavata w.s.r. to Rheumatoid Arthritis.

   **Scholar:** Dr. Krishna Thanaki
   **Guide:** Prof. VD Shukla
   **Co-Guide:** Dr NN Bhatt

Manasa Roga Speciality:

1. A Double Blind Randomized Placebo Controlled Study in the Management of Male Erectile Disorders with Ashvagandha.

   **Scholar:** Dr. Prasad Mamidi
   **Guide:** Dr. AB Thakar

2. Randomized Placebo Controlled Clinico Experimental Study on Sarasvata Choorna in the Management of Generalized Anxiety Disorder.

   **Scholar:** Dr. Kshama Gupta
   **Guide:** Dr. AB Thakar
   **Co-Guide:** Dr B Ravishankar

**Scholar:** Dr. Yogesh Deole  
**Guide:** Dr. AB Thakar  
**Co-Guide:** Prof. H.M. Chandola, Dr B Ravishankar

**Ph.D. RESEARCH PROJECTS:** (In Progress)

1. A study in Vishaada w.s.r to generalized anxiety disorder and its management with Ashwagandha – a randomized double blind clinical study.

**Scholar:** Dr Khyati Santavani,  
**Guide:** Dr. AB Thakar  
**Co-Guide:** Dr. Arun Khatri

2. The Role of Manass Bhava in etiopathogenesis of Essential Hypertension and its management by Sarpagandha Vati and Medhya Rasayana.

**Scholar:** Dr. Nishant Shukla  
**Guide:** Prof VD Shukla  
**Co-Guide:** Dr. AR Dave

3. A Randomized Clinical study to analyze the effect of Gokshura-Punarnava Basti in the Management to Microalbuminuria in Diabetes Mellitus (Prameha).

**Scholar:** Dr Rajakala,  
**Guide:** Dr. AB Thakar  
**Co-Guide:** Dr. AH Trivedi

**M.D. RESEARCH PROJECTS:** (Completed)

1. Clinical study on the effect of Virechana karma and Padughni vati in the management of Pandu w.s.r. to Iron Deficiency Anemia.

**Scholar:** Dr. Monica Agraval,  
**Guide:** Dr. AB Thakar  
**Co-guide:** Dr. Tushar M Shingala.

In the present study, total 37 patients of Pandu were randomly divided into two groups i.e. 16 patients in Group A (Virechana karma + Pandughni Vati) and 21 patients in Group B (Pandughni vati group). Two patients from each group were dropped out from the study. Patients of Group A were performed virechana procedure as pre decided formula. In Group-B, Pandughni Vati was given in the dose of 1 gm twice a day for 2 months with lukewarm water. Both groups showed statistically highly significant results (P< 0.001) on the symptoms of Pandu with more relief in Group A. Regarding Haemotological investigations, Group A showed increase of 82.6% in S.Ferritin which is statistically significant (P<0.5). Hb% increased by 2.8%, PCV increased by 1.0%, S. Iron increased by 12.2%. But all these changes are statistically insignificant. In Group B, there is some decrement in the result values, though it was within the normal range.
2. **A comparative study between the efficacy of Vamana and Virechana Karma in the management of Tamaka Shvasa w.r.t Bronchial Asthma**

**Scholar:** Dr. Gadhvi Kundan  
**Guide:** Dr. Santosh Kumar Bhatted

Total 31 patients of Tamaka Shvasa were registered among them 29 completed the treatment. Patients were randomly divided in to two groups viz. Group A (Vamana group) and Group B (Virechana group). After Samsarjana Krama, Drakshadi Leha was given as Shamana, in both the groups. Statistically highly significant (P<0.001) results were obtained in both the groups in Shvasakashtata, frequency of Shvasakashtata, reduction in taking no of emergency medicine, Pinasa, Kaphashtheevana, productive cough, Ghurghuraka, Orthopnea (Asine Labhate Saukhyam), Kantho-dhvasamsam, Kupitam and PEFR. The statistical analysis showed that, Vamana gave better relief in Shvasa Kashtata and rhonchi in comparison to Virechana Karma. While the difference in other symptoms and investigations like PEFR, AEC between both the groups was statistically insignificant (P>0.10). In group A, 21.42% patients had marked improvement, while none of patients in group B. In group A 28.57% patients showed moderate improvement, while 46.66% patients in group B. In group A 35.71% patients showed improvement, while 33.33% patients in group B. In group A 14.28% patients remained unchanged & 20% patients in group B. The results obtained in this study suggest that Vamana Karma relieves the symptoms of the disease immediately while Virechana Karma provides prevention by reducing frequency and severity of symptoms in longer duration.

3. **Assessment of Lekhana Basti in the management of Hyperlipidaemia.**

**Scholar:** Dr. Swapnil Auti  
**Guide:** Dr. AB Thakar  
**Co-Guides:** Dr. B Ravishankar, Dr. VJ Shukla

Based upon the etiological factors and symptoms, hyperlipidaemia can be considered as a part of Medoroga. Lekhana Basti being Tikshna, is aimed basically for Apatarpama of the body. Total 22 patients were registered of which, 19 patients completed the course of the therapy. Patients were randomly divided in two groups. Group ‘A’ were given Triphaladya Taila Anuvāsa at a dose of 160ml followed by three Lekhana Basti each of 1000ml and one Anuvāsa on last day; in a schedule of 21 days. Patients from group ‘B’ were given Triphala Guggulu (Standard Control) in a dose 3gm/day before meal with lukewarm water for 21 days. The results of the study revealed that in patients treated with Lekhana Basti, there was a decrease of about 4.99% in S. cholesterol, 9.13% in S. LDL and 0.36% in S. Apolipoprotein B. Lekhana Basti was found to have significant effect in reducing the symptoms of Medodushti and in reduction of objective parameters like weight, BMI, body fat percentage, body circumferences such as chest, abdomen, hip, pelvis & mid thigh circumferences etc. and skin fold thickness as biceps, triceps, mid arm and abdominal skin fold thickness.

4. **A clinical study on the effect of Virechanakarma and Amalaki Rasayana in the management of Kshina Shukra w.r.t Oligozoospermia.**

**Scholar:** Dr. Nakul Jethva  
**Guide:** Prof. VD Shukla  
**Co-Guides:** Dr. AB Thakar, Dr. TM Shingala
Oligozoospermia is considered as the most common cause of infertility where body fails to produce adequate number of healthy sperms. In the management of all types of Shukradusti, Acharyas have described the employment of Shodhana prior to Shamana Vrishya Chikitsa. Virechana Karma is told the best treatment for Pitta pradhana Dosha in all classics. In the present study, 31 patients were randomly divided in two groups. Total 29 patients completed Karma followed by Amalaki Rasayana 3gm twice a day for one month; the patients in group B (13 patients) were given only Amalaki Rasayana 3gm twice a day for one month. Semen analysis was done before and after treatment. At the end of study, sperm count increased significantly ($P<0.05$) by 93.76% and 71.46% in group A and group B respectively. Thus, both the groups showed good results in increasing sperm count but group A was found better than group B. Semen volume, morphological abnormal forms of sperm, chief and associate complaints of Shukradusti, Agnibala, Dehabala and Chetabala and Shukravahasrotodusti Lakshanas improved better in group A than in group B.

5. **Assessment of clinical efficacy of Eranda Mooladi Yapanas Basti & Eranada Bija Kshirapaka in the management of Katigraha w.s.r. to Lumber spondylosis.**

**Scholar:** Dr. KPS Fernando  
**Guide:** Prof. VD Shukla  
**Co-Guide:** Dr AB Thakar

The study was carried out on total of 43 volunteers, randomly divided in to 2 groups out of which 36 completed treatment. In Basti group 23 patients were registered and 20 completed treatment where as in Kshira Paka group 20 were registered number and 16 completed treatment. Eranda Muladi Yapanas Basti and Eranada Bija Kshira Paka, both provided statistically highly significant ($p<0.001$) results in improving Kati Graha, Kati Shula, Sparsha Asahyata, Gridrasivat Pida, Pada Gaurava, reduction in use of pain killers and improvement in Agni, Sattva Bala. Eranda Bija Kshira Paka provided statistically significant ($p<0.01$) results in improving Pada Harsha, Gamane Kashtata, Pada Supti, SLR test and Deha Bala where as Basti provided statistically highly significant ($p<0.001$) results in improving all these symptoms except in Pada Supti which was insignificant. Both therapies showed insignificant results in improving Mamsa Kshaya and Pada Daha. In Basti group 35% patients achieved marked improvement, 25% of patients achieved mild improvement and 15% patients had complete remission as well as moderate improvement. In Kshira Paka group 37.5% got mild improvement 25 had moderate improvement followed by 12.5 % having marked improvement but in 18.75% of patients, condition remained unchanged. In the follow up after 1 month, 73.53% patients had no recurrence of disease while 26.47% patients noticed recurrence of symptoms. No adverse reactions were noted in the trial.

6. **A Clinical study of Virechana, Takradhara and Makandi Ghanavati in the management of Ekakaustha w.s.r. to Psoriasis.**

**Scholar:** Dr. Chetan Gulhane  
**Guide:** Prof. VD Shukla  
**Co-Guide:** Dr. Santosh Kumar Bhatted, Dr. AR Dave

Psoriasis resembles with descriptions of Ekakushtha in Ayurveda. In the present study, total 33 patients were registered and divided into two groups. Out of these 28 could complete the study. In group A - Virechana and in group B - Takradhara was given followed by Makandi Ghanavati for duration of 15 Days with the dose of 3 Gm per day in both groups. Clinical efficacy of Takradhara was assessed by Health, Wellness and Quality of Life Questionnaire and stress evaluation in psoriasis patients was done by Holmes Rahe Stress Rating scale. Virechana Group showed better relief in Srava
(discharge), Mandala (Erythema) and Aswedana (Anhydrous), while Takradhara Group shows better result in Symptoms like Daha (Burning sensation), Bahalatva (Epidermal thickening), Ruksaha (Dryness) & Kandu (Itching). The obtained results of clinical trial suggests that both groups have highly significant results (P <0.001) on the symptoms of Ekakushtha.

7. A comparative study of Vamana and Virechana karma in the management of Sthoulya w.r.t Obesity

Scholar: Dr. Rajan Nelson Munzni  Guide: Prof. VD Shukla
Co-Guide: Dr. AB Thakar, Dr NN Bhatt

M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)


Scholar: Dr Anjali Mali  Guide: Dr. Santosh Kumar Bhatted
Co-Guide: Dr. AB Thakar, Dr. Manish Mehta

2. Effect of Vamana Karma and Vyoshyadi Guggulu in the Management of Dyslipidemia - A randomized Controlled Clinical Study.

Scholar: Hemang U. Raghvani  Guide: Dr AB Thakar
Co-Guide: Dr. Santosh Kumar Bhatted

3. Further clinical study on standardization of Vamana Karma w.s.r. to Antiki, Vaigiki, Maniki & Laingiki criteria.

Scholar: Dr Neetu Jain,  Guide: Dr AB Thakar
Co-Guide: Dr. VJ Shukla

4. A comparative study of Vrishya Basti & Kulinga (blepharis edulis) after Virechana Karma in the management of Kshinashukra w.s.r. to Oligozoospermia.

Scholar: Dr Nikunj Mewad  Guide: Dr AB Thakar
Co- Guide: Dr. Santosh Kumar Bhatted

5. A comparative study of Matra Basti and Brumhana Sneha by Panchatikta Guggulu Ghrita in the management of Asthi Majja Kshaya w.s.r. to osteopenia / osteoporosis.

Scholar: Vd. Saurabh R. Bhuva  Guide: Dr Santosh Kumar Bhatted
Co-Guide: Dr AB Thakar

6. A role of Matra Basti as a radioprotective & chemoprotective adjuvant in the management of cancer.

Scholar: Siddharth Kumar J More  Guide: Dr AB Thakar
Co-Guide: Dr. SK Agarwal
7. A comparative study between Vamana and Virechana Karma in the management of Sthula Pramehi w.s.r to Type-II diabetes mellitus.

Scholar: Dr Sunita Shelke  
Co-Guide: Dr. AB Thakar  
Guide: Dr. Santosh Kumar Bhatted

8. A comparative study on effect of Vamana and Virechana Karma followed by Brumhana Snehapana (Kantakari Ghrita) in the management of Tamaka Shvasa w.s.r. to Bronchial Asthma.

Scholar: Dr Shveta Patil  
Co-Guide: Dr. AB Thakar  
Guide: Dr. Santosh Kumar Bhatted

9. A comparative clinical study on Guduchi-bhadramustadi yoga administred orally as well as kala Basti in the management of Sthaulya w.s.r. to Obesity.

Scholar: Dr Hemal  
Co-Guide: Dr. AB Thakar  
Guide: Dr. Santosh Kumar Bhatted

10. A comparative clinical study between Rasnadi Taila and Pathyadi Kvatha administered orally in the management of Vatika Shirshoola w.s.r to Tension Headache.

Scholar: Dr Ramesh Patel  
Co-Guide: Dr. AB Thakar  
Guide: Dr. Santosh Kumar Bhatted

11. A clinical study on the effect of Vamana Karma and Aamalaki Rasayana in the management of Pandu w.s.r. to Iron deficency Anemia.

Scholar: Dr Shaizi Layeeq  
Co-Guide: Dr. AB Thakar  
Guide: Dr. Santosh Kumar Bhatted

12. A comparative clinical study between Dhatryadi Kvatha and Manashiladi Lepa along with and without Trivrittadi Yoga Virechana administered in the management of Shvitra.

Scholar: Dr Nilesh Patel  
Co-Guide: Dr. Santosh Kumar Bhatted  
Guide: Dr. AB Thakar

**EXTRA CURRICULAR ACTIVITIES**

1. Department has organized Vasantika Vamana Camp, which was well responded by the society in which about 69 persons undergone classical Vamana Karma.

2. Department has also established physiotherapy centre, in which various patients suffering with musculoskeletal and neurological diseases are being treated with physiotherapy in addition to Panchakarma

3. Educational tour: The department has organised an educational tour to upgrade the knowledge of MD scholars during 09th to 25th November 2011 in the supervision of Prof. VD Shukla. During the tour scholars visited various Ayurveda institutes, hospital and pharmacies in places like Tirupathy, Pujapuram, Trivandrum, Kottathil, Ayaarkunam, Kottakal, Cheruthiruty, Thrissur, Udupi, Shiroda, Mumbai etc.
Introduction:

The department of Kaumarabhritya was established in the year 1978-79 with two sub specialties viz. Balaroga and Striroga & Prasutitantra. Later on in 2006, these two were separated and independent Department of Kaumarabhritya came into existence. This department deals with preventive, curative and promotive aspects of child health, starting with new born care to neonates and adolescent children. The department also works towards better community health especially in the preventive and promotive aspects of children in accordance with the various national health programs such as immunization, school health checkup programs, anemia detection and management etc.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. KS Patel</td>
<td>Associate Professor &amp; HOD</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>Dr. VK Kori</td>
<td>Assistant Professor</td>
<td>M.D. (Ayu)</td>
</tr>
<tr>
<td>Dr. Rajagopala S</td>
<td>Assistant Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
</tbody>
</table>

Academic Activities: During the span of April 2010 - March 2011, the Dept. has involved in various activities, brief data of the same is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. M.D. (Ayu) Students</td>
<td>012</td>
</tr>
<tr>
<td>2. Ph.D. (Ayu) Scholars</td>
<td>005</td>
</tr>
<tr>
<td>3. Theory / Practical classes conducted for 2nd &amp; 3rd year M.D.(Ayu) including for foreign scholars under different schemes</td>
<td>461</td>
</tr>
<tr>
<td>4. Departmental Seminars conducted</td>
<td>035</td>
</tr>
<tr>
<td>5. School Health Surveys</td>
<td>010</td>
</tr>
<tr>
<td>6. Papers published</td>
<td>003</td>
</tr>
<tr>
<td>7. Papers presented including Guest lectures</td>
<td>017</td>
</tr>
<tr>
<td>8. Books / periodicals published</td>
<td>001</td>
</tr>
<tr>
<td>9. Medical Camps</td>
<td>009</td>
</tr>
</tbody>
</table>

CLINICAL RESEARCH: Hospital Activities - General Data:

| No. of patients visited OPD | 9171 |
| Patients admitted in IPD    | 0238 |

Immunization: As per National Immunization Schedule, Immunization is being offered to the needy children, the details for the current reporting year are given below:

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. OPV</td>
<td>80</td>
</tr>
<tr>
<td>2. DPT</td>
<td>65</td>
</tr>
<tr>
<td>3. Measles</td>
<td>00</td>
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<tr>
<td>4. BCG</td>
<td>15</td>
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<td>5. TT</td>
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</tbody>
</table>

Total 165
Panchakarma and other procedures: The department has a full-fledged 'Procedure Room' wherein different Panchakarma procedures are being carried-out as part of clinical and research activities. Particularly the procedures are conducted on IPD admitted patients of CP, MR, DMD, Psoriasis, Diseases of Musculo-skeletal system, Epilepsy, Shwasa etc. Neonatal cord dressing and Shiro Pichu are regular procedures in the IPD. There is a separate neonatal care unit in which Phototherapy is given to the neonates with physiological jaundice. Brief details of procedures conducted in the current year are as follows:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>1 Abhyanga</td>
<td>071</td>
</tr>
<tr>
<td>2 Abhyanga + Churna pottali sweda</td>
<td>010</td>
</tr>
<tr>
<td>3 Abhyanga + Nadiswedana</td>
<td>630</td>
</tr>
<tr>
<td>4 Abhyanga + Nadiswedana + Matrabasti</td>
<td>288</td>
</tr>
<tr>
<td>5 Abhyanga + Shashtika Shali Pinda Sweda</td>
<td>033</td>
</tr>
<tr>
<td>6 Agnilepa</td>
<td>023</td>
</tr>
<tr>
<td>7 Chaturbhadrakalpa Kalpa Basti with Abhyanga &amp; Nadi Sweda</td>
<td>096</td>
</tr>
<tr>
<td>8 Cord Dressing + Shiropichu for neonate</td>
<td>271</td>
</tr>
<tr>
<td>9 Dashanga Lepa</td>
<td>018</td>
</tr>
<tr>
<td>10 Kala Basti</td>
<td>015</td>
</tr>
<tr>
<td>11 Nasya</td>
<td>156</td>
</tr>
<tr>
<td>12 Panchatikta Ksheera Basti</td>
<td>014</td>
</tr>
<tr>
<td>13 Patrapinda Ssweda</td>
<td>031</td>
</tr>
<tr>
<td>14 Pizhichhil</td>
<td>015</td>
</tr>
<tr>
<td>15 Shiro Basti (After Abhyanga+Nadisweda)</td>
<td>007</td>
</tr>
<tr>
<td>16 Shirodhara with Taila</td>
<td>007</td>
</tr>
<tr>
<td>17 Shiropichu</td>
<td>106</td>
</tr>
<tr>
<td>18 Shunthi Lepa</td>
<td>077</td>
</tr>
<tr>
<td>19 Snehapanawith Abhyanga &amp; Nadisweda</td>
<td>005</td>
</tr>
<tr>
<td>20 Takra Dhara</td>
<td>007</td>
</tr>
<tr>
<td>21 Takra Lepana</td>
<td>014</td>
</tr>
<tr>
<td>22 Udvartana</td>
<td>466</td>
</tr>
<tr>
<td>23 Valuka Sweda</td>
<td>041</td>
</tr>
<tr>
<td>24 Virechana Karma</td>
<td>005</td>
</tr>
<tr>
<td>25 Yoga Basti (After Abhyanga+Nadisweda)</td>
<td>368</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2774</strong></td>
</tr>
</tbody>
</table>
School health survey programs:

Different schools of Jamnagar were visited and the children were screened for their health status. Brief data is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>School Name</th>
<th>Children Screened</th>
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<tbody>
<tr>
<td>16.09.2010</td>
<td>K.B. Mandu Vidyalaya</td>
<td>287</td>
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<tr>
<td>30.09.2010</td>
<td>Adarsh Nivasi Shala</td>
<td>210</td>
</tr>
<tr>
<td>30.09.2010</td>
<td>Shaasakeeya Vikshati Jati Chhatralaya, Rameshwar Nagar</td>
<td>035</td>
</tr>
<tr>
<td>13.10.2010</td>
<td>Dr. Ambedker Vidyalaya</td>
<td>180</td>
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<tr>
<td>02.12.2010</td>
<td>Balaknatha School, Kalavada naka</td>
<td>220</td>
</tr>
<tr>
<td>24.01.2011</td>
<td>R.R. Shah High School, Lal Bungalow</td>
<td>366</td>
</tr>
<tr>
<td>14.02.2011</td>
<td>St. Gregarious High School</td>
<td>212</td>
</tr>
<tr>
<td>17.02.2011</td>
<td>Kumar Bedi Shala, Bedi</td>
<td>150</td>
</tr>
<tr>
<td>23.02.2011</td>
<td>St. Ann’s High School</td>
<td>835</td>
</tr>
<tr>
<td>04.03.2011</td>
<td>Parvati Devi School, Gurudwara</td>
<td>1100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3595</strong></td>
<td></td>
</tr>
</tbody>
</table>

RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Submitted)


   Scholar : Dr. Raja Hariprasad A,  
   Guide : Dr. KS Patel  
   Co-Guide: Dr. B. Ravishankar

   Experimental study revealed significant weight loss in mercuric chloride treated rats. Hb%, RBC and Hematocrit values decreased significantly. Serum iron and serum ferritin were decreased. Serum TIBC increased in mercuric chloride treated rats. Liver and other visceral organs showed marked degenerative changes in mercuric chloride control group. All these changes were reversed by the trial as well as control drugs. The Cytoprotective activity of both the drugs was almost equal whereas Drakshadi syrup proved to be better in haematinic activity.

   Cross Sectional Study: Among the 847 cases found to be clinically anemic only 374 responded to the advice to attend the hospital and undergo laboratory evaluation. Hemoglobin was found to be lower than normal as per WHO guidelines in 293 of them while serum ferritin was below normal among 93. It was found that, 39.48% school children of Jamnagar were found to be anemic with high prevalence among adolescence girls.

   Clinical study: It was randomized controlled blind trial and patients selected for the study were divided into the two groups. Trial Group (A) received Dadimadi syrup, while Standard Control Group (B) received Drakshadi syrup. Among 88 patients registered in the study, 69 completed the trial while 19 patients discontinued. Both the drugs showed almost equal and highly significant response in the cardinal features. Better response in
the correction of metabolism and weight gain was observed in Dadimadi treated group. In the lakshanas of Annavaha and Rasavaha Srotas, Dadimadi syrup gave better results. In improving Hb% as well as Serum Ferritin level Drakshadi Syrup provided better results whereas in improving Serum Iron level and decreasing Serum TIBC level, Dadimadi Syrup gave better results. During the follow up period, Dadimadi syrup proved to be more stable in maintaining the improvement obtained during the treatment. Overall, equal response was shown by both the drugs. No adverse effects were reported by any of the patients.

Ph.D. RESEARCH PROJECTS: (In Progress)

   
   Scholar: Dr. VK Kori       Guide: Dr KS Patel   Co-Guide: Dr. B. Ravishankar.

2. Evaluation of Ikshvadi Avaleha as an Adjuvant therapy in Rajayakshma w.s.r. to Tuberculosis in Children.
   
   Scholar: Dr. Salim D. Gohel   Guide: Dr. KS Patel

3. A clinical study on the efficacy of Triphala Guduchyadi Vati in the management of Sthaulya (Obesity) in Children.
   
   Scholar: Dr. Biju KR       Guide: Dr. KS Patel   Co-Guide: Dr. Rajagopala S

4. A clinical study on Medhya effect of Yastimadhu Granules in school going children w.s.r. to Intelligence Quotient (IQ)
   
   Scholar: Dr. Shrihari       Guide: Dr. KS Patel   Co-Guide: Dr. Rajagopala S

5. A clinical study on Tamaka shwaasa vis-a-vis Bronchial Asthma to evaluate the comparative efficacy of Ashtaangaavaleha and Vyaaghreehareetakee Avaleha in children.
   
   Scholar: Dr. Arvind Dubey   Guide: Dr. Rajagopala S   Co-Guide: Dr. KS Patel

M.D. (AYU.) RESEARCH PROJECTS: (Completed)

1. A study of Bejjadushtijanya Pandu and its management with Triphaladi Avaleha w.s.r. Thalassemia
   
   Scholar: Dr. Abhishek Y. Patalia     Guide: Dr. VK Kori
   Co-Guides: Dr. KS Patel, Dr. Rajagopala S

Total 32 patients between age group of 1 to 15 years were registered and randomly divided into two groups of 16 patients in each group. Drug treated group (Group A) and Control group (Group B). In Group A, Triphaladi Avaleha was given with Godugdha and in Group B Deferiprone was given. Assessment was done on subjective and objective parameters after 12 weeks of treatment with follow up of 8 weeks. The trial drug proved better than the standard control in Panduta and Sandhishtola with highly significant level, while in Jwara, Akshikootashotha and Pindikodweshtana results are significant. In
Group A, 5 patients (38.46 %) got maximum improvement, 5 patients (38.46 %) got moderate improvement and 2 patients (15.38%) got mild improvement, while no improvement was seen in 1 patient (7.7 %). In Group B none of the patients got maximum improvement, 2 (18.18%) patients got moderate improvement, 4 (36.36%) patients got mild improvement and 5 (45.46%) got no improvement.


Scholar: Dr. Amrita Gaikwad  
Guide: Dr. KS Patel  
Co-Guides: Dr. VK Kori, Dr. Rajagopala S, Dr. B Ravishankar

A clinical study with Madhu-Ghrita and Madhu-Ghrita-Swarna-Vacha in liquid form was attempted and given to neonates in 5 drops dose for 4wks. Total 34 neonates registered in the present clinical study. In distilled water group, in Madhu-Ghrita group and in Madhu-Ghrita-Swarna-Vacha total number of cases registered were 11, 12 and 11 respectively. The conclusion of this study is Madhu-Ghrita and Madhu-Ghrita-Swarna-Vacha both acts as equivalent Brumhaniyas and immunomodulators for Neonates.

In the pharmacological study the immunomodulatory effect of Madhu-Ghrita and Madhu-Ghrita-Swarna-Vacha was evaluated in wistar albino rats. The study concluded that the Madhu-Ghrita has both humoral and cell-mediated immunity stimulating action while Madhu-Ghrita-Swarna-Vacha has only effected on humoral immunity.


Scholar: Dr. Nirali Doshi  
Guide: Dr. KS Patel  
Co-Guides: Dr. VK Kori, Dr. Rajagopala S

In above study, three groups were taken – Prinan Modak group; Godhumadi Modaka group and Control group. Duration of the study was 10 weeks and Follow up was carried out for another 10 weeks. Total 28 patients were registered. Among them 21 patients completed and 7 patients dropped out. In Prinan Modak group total 10 patients were registered, 7 completed, 3 dropped out; in Godhumadi Modak group total 11 patients were registered, 8 completed, 3 dropped out and in control group total 7 registered, 6 completed, 1 dropped out. In the study, it was found that, Prinan Modak increased S. cholesterol and Godhumadi Modak increased Weight.

4. A clinical study on Shashtika Shali Pinda Sweda & Samvardhana Ghrita in the management of cerebral palsy.

Scholar: Dr. Apexa Vyas  
Guide: Dr. VK Kori  
Co-Guides: Dr. KS Patel, Dr. Rajagopala S

Cerebral Palsy is a syndrome like condition resulting as an eventual pathology of any type of injury to the developing brain and having similarity with Vata predominant condition or Vata Vyadhi. The pilot study was conducted to screen the efficacy of Ayurvedic treatment viz. Group A (Shashtika Shali Pinda Sweda and Samvardhana Ghrita internally) and Group B (Samvardhana Ghrita internally). It was carried out in 16 patients 8 in each group for 35 days duration. Statistical significance of results on selected criteria in both the Groups concluded that Ayurvedic treatment modality is effective in relieving the signs and symptoms of CP in the included sample. Comparatively better results were observed in Group A.
M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)

1. A study on ‘Chaturbhadra kalpa basti’ and ‘Yoga basti’ in the management of spastic cerebral palsy.
   Scholar: Dr. Sagar M Bhinde                        Guide: Dr. KS Patel
   Co-Guides: Dr. VK Kori, Dr. Rajagopala S

2. A pharmaco-clinical study on kasa and vyadhi kshamatwa in children with kasahara dashemani vati
   Scholar: Dr. Nayan Kumar. S                        Guide: Dr. KS Patel
   Co-Guides: Dr. VK Kori, Dr. Rajagopala S, Dr. B Ravishankar

3. A double blind study for improving I.Q. of school going children with Guduchi
   Scholar: Dr. Kirti K Rathod                        Guide: Dr. VK Kori
   Co-Guides: Dr. KS Patel, Dr. Rajagopala S, Dr. Arun Khatri

   Scholar: Dr. Rakesh Kumar Singh                    Guide: Dr. Rajagopala S
   Co-guides: Dr. KS Patel, Dr. VK Kori.

5. A Clinical Study on Beejadushtijanya Pandu – Thalassemia and its Management with Triphaladi Avaleha
   Scholar: Dr. Raina A Rathod                       Guide: Dr. VK Kori
   Co-Guides: Dr. KS Patel, Dr. Rajagopala S.

   Scholar: Dr. Jaya Sreenivasan                     Guide: Dr. Rajagopala S
   Co-Guides: Dr. KS Patel, Dr. VK Kori

7. A Comparative Clinical Study on the Management of Pandu Roga (IDA) with Draksha Dadimadi Syrup and Drakshadi Syrup.
   Scholar: Dr. Swapnil Chandrakant Raskar           Guide: Dr. KS Patel
   Co-Guides: Dr. VK Kori, Dr. Rajagopala S.

   Scholar: Dr. Pavan D. Gor                         Guide: Dr. KS Patel
   Co-Guides: Dr. VK Kori, Dr. Rajagopala S.
Introduction:

Streeroga and Prasooti Tantra department was established as an independent department in 2006. The faculty is involved in imparting teaching, training and research activities mainly in two boughs i.e. Streeroga (Gynaecology) and Prasooti Tantra (Obstetrics). The faculty of Streeroga deals with management of Artava Vyapad (Menstrual Disorders), Yoni Vyapad (Female Reproductive Tract Disorders) and Vandhayatwa (Infertility). Prasutitantra takes care of Garbhini (Antenatal), Prasava (Labour) and Sutika (Puerperal). Prasutitantra also concerned with Garbha Pratibandhaka yogas (Contraceptive Measures).

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>SL.No</th>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. L.P. Dei</td>
<td>Associate Professor</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Kamini Dhiman</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>3</td>
<td>Dr. S.B. Donga</td>
<td>Reader</td>
<td>M.D. (Ayu), Ph.D.</td>
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</table>

Visiting Consultant

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<tr>
<td>4</td>
<td>Dr. K. Khandheriya</td>
<td>Sonologist</td>
<td>M.D. (Obs. &amp; Gyn.)</td>
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Academic Activities: During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

<table>
<thead>
<tr>
<th>SL.No</th>
<th>Activity</th>
<th>Total</th>
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<td>1</td>
<td>M.S. (Ayu) Students</td>
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<td>2</td>
<td>Theory &amp; Practical classes conducted (1st, 2nd, 3rd Scholars)</td>
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<td>3</td>
<td>Departmental weekly Seminars</td>
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<tr>
<td>4</td>
<td>Papers published</td>
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<tr>
<td>5</td>
<td>Papers presented including Guest lecturers</td>
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<td>6</td>
<td>Medical Camps attended</td>
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CLINICAL RESEARCH: Hospital Activities - General Data:

No. of patients visited OPD 14035
Patients admitted in IPD 00967

Specialized procedures / treatments done:

<table>
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<th>No.</th>
<th>Procedures / Treatment</th>
<th>Total</th>
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<tbody>
<tr>
<td>1.</td>
<td>Yoga Basti</td>
<td>0142</td>
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<tr>
<td>2.</td>
<td>Matra Basti</td>
<td>0125</td>
</tr>
<tr>
<td>3.</td>
<td>Anuvasana Basti (ante natal)</td>
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</tr>
<tr>
<td>4.</td>
<td>Uttara Basti</td>
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</tr>
<tr>
<td>5.</td>
<td>Yoni Prakshalana</td>
<td>0097</td>
</tr>
<tr>
<td>6.</td>
<td>Yoni Prakshalana &amp; Yoni Pichu</td>
<td>0232</td>
</tr>
<tr>
<td>7.</td>
<td>Nasya</td>
<td>0012</td>
</tr>
<tr>
<td>8.</td>
<td>Shukra Basti (IUI)</td>
<td>0004</td>
</tr>
</tbody>
</table>
9. Agnikarma 0013
10. Virechana 0041
11. Prasava 0052
12. D & E and D & C 0032
13. USG 2375
14. HSG 0070
15. Pap smear 0085
16. Wet vaginal smear 0832
17. Minor surgical procedures (Missed Cu-T removal, polypectomy etc.) 0008

Family planning unit:
1. Cu-T 32 patients
2. Condom Free supply
3. Oral Contraceptive Pills Free supply

RESEARCH ACTIVITIES:

M.S. (AYU.) RESEARCH PROJECTS: (Completed)

   
   **Scholar:** Dr. Yamini Tripathi  
   **Guide:** Dr. S.B. Donga  
   **Co-Guides:** Dr. L. P. Dei, Dr. Nalini Anand

   Total 30 patients of Gestational Hypertension were registered and divided into two groups. In Group A (n=15) 4 tablets of Mamsyadi Vati (each of 500mg) and in Group B (n=15) one tablet of Methyl dopa (250 mg) as a standard control were given thrice daily with plain water after meal for 60 days. The results obtained showed striking similarity in restoring blood pressure in both the groups. However, better symptomatic relief was observed in Mamsyadi Vati group.

2. A clinical study on Shweta pradara (Leucorrhoea) and its management with Nimbadi Yoga.
   
   **Scholar:** Dr. Grishma N. Solanki  
   **Guide:** Dr. L.P. Dei
   **Co-Guides:** Dr. S.B. Donga

   Total 106 patients suffering with Shwetapradara were selected in study and randomly divided in two groups. In Group A (n=58) patients were treated with Nimbadi Yoni Varti (1 Varti of 3 gm at bed time), in Group B (n=48) patients were treated with Nimbadi Yoni Prakshalana (1000ml decoction once at morning) for duration of 7 days and follow up after 1 month. The result found that Nimbadi Yoni Varti and Yoni Prakshalana both are highly effective in the management of Shwetapradara, but Nimbadi Yoni Varti is more convenient and effective in Yoni Srava, Kandu and reliving vaginitis with no apparent evidences of complications.

   
   **Scholar:** Dr. Krupa D. Patel  
   **Guide:** Dr. L.P. Dei
   **Co-Guides:** Dr. S.B Donga, Dr. Nalini Anand
Total 34 patients were registered and randomly divided into 3 groups, out of them 32 patients completed 2 month course of treatment. In Group A, Pathadi Kwatha (10 gm, bid) and Shatapushpa Taila Matra Basti (60 ml for 7 days after cessation of menses for 2 consecutive cycles) were given. In Group B only Shatapushpa Taila Matra Basti was given while in Group C Placebo capsules (2 cap. of 500mg, bid) were given. In both the groups i.e. group A & B, encouraging results were obtained but better results were observed in group A in menstrual irregularities, achieving follicular growth and weight reduction.

4. A clinical study on Upapluta Yonivya pad w.r.t vulvovaginitis during pregnancy and its management with Panchavalkaladi Varti.

Scholar: Dr. Sunita
Co-Guides: Dr. L.P. Dei, Dr. Nalini Anand
Guide: Dr. S.B. Donga

Total 52 patients of Upapluta Yonivyapad were registered and randomly divided into two groups. In Group A (n=27) patients treated with Panchavalkaladi Yoni Varti (1gm twice a day for 15 days) and in Group B (n=25) patients treated with 'Trida' vaginal suppository (1 gm once a day for 7 days). Highly significant relief was found in both the groups in almost all signs and symptoms of vulvovaginitis during pregnancy. But, on comparing the effect, Panchavalkaladi Yoni Varti has provided better relief than Trida Vaginal suppository on percentage basis.

M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)


Scholar: Dr. Amit V. Rupapara
Guide: Dr. S.B. Donga
Co-Guide: Dr. L.P. Dei

2. A study on Garbhashayagata Arbuda (uterine fibroid) and its management with Kalyanaka Kshara and Shigruvadi Churna.

Scholar: Dr. Rachana Gupta
Guide: Dr. L.P Dei
Co-guides: Dr. S.B. Donga, Dr. Nalini Anand.

3. A study on Garbhashaya Griva Mukhagata Vrana (cervical erosion) and its management by Agnikarma.

Scholar: Dr. Hemlata Chimate
Guide: Dr. L.P. Dei
Co-Guides: Dr. S.B. Donga, Dr. P.M. Santawani


Scholar: Mansi B. Modi
Guide: Dr. S.B. Donga
Co-Guide: Dr. L.P. Dei

5. A further study on Vandhyatva w.r.t. to tubal blockage & its management with Uttara Basti of Yava Kshara Taila & Kumari Taila.

Scholar: Dr. Neha Mamgain
Guide: Dr. L.P. Dei.
Co-Guides: Dr. S.B. Donga, Dr. Nita Sata
6. A further clinical study on Dashamool Taila Matra Basti and Tila Taila Matra Basti in the management of Kashtartava (Dysmenorrhea).

Scholar: Dr. Amit Tanna  
Co-Guide: Dr. S.B. Donga  
Guide: Dr. L.P. Dei

7. Further study of Uttara Basti of Yava Kshara Taila & Kumari Taila in the management of Tubal Block.

Scholar: Dr. Hetal Baria  
Co-Guide: Dr. L.P. Dei, Dr. Nita Sata  
Guide: Dr. S.B. Donga

8. Role of Madhu tailika Basti and Pippalyadi Yoga in Infertility w.s.r. to Anovulation.

Scholar: Dr. Shachi Pandya  
Co-Guide: Dr. L.P. Dei, Dr. A.B. Thakar  
Guide: Dr. Kamini Dhiman


Scholar: Dr. Deepika Gupta  
Co-Guide: Dr. S.B. Donga, Dr. K. Khandheriya  
Guide: Dr. Kamini Dhiman

10. Further study on Upapluta Yonivyapad w.s.r. to vulvovaginitis during pregnancy & its management by Panchavalkaladi Yoga.

Scholar: Dr. Priti Singh  
Co-Guide: Dr. L.P. Dei, Dr. Kamini Dhiman  
Guide: Dr. S.B. Donga

11. Further study on Shwetapradara (vaginal discharge) & its management by Nimbadi Yoga.

Scholar: Dr. Poonam Choudhary  
Co-Guide: Dr. S.B. Donga, Dr. Chandrika Tanna  
Guide: Dr. L.P. Dei

12. Management of Putraghni Yonivyapad (w.s.r. to habitual abortion) in early pregnancy with Shramahara Dashemani.

Scholar: Dr. Parul Joshi  
Co-Guide: Dr. Kamini Dhiman, Dr. Nita Sata  
Guide: Dr. L.P. Dei

* * * * *
Introduction:

The department of Shalya Tantra is dealing with the surgical as well as para-surgical disorders. Activities like Teaching, Training, Research and Clinical works at OPD & IPD levels to the PG, Ph.D. and foreign scholars are being imparted throughout the year. All possible para-surgical cases along with general surgical cases, with the help of anesthetist have been conducting since the inception of the department. The department has been upgraded with innovative para-surgical measures like Agni karma, Rakta Mokshana, Kshara Karma and more tools for better outcome. A new unit of Asthi Sandhi Marma Abhighata Chikitsa has been introduced last year. Most popular unit of the department is Kshararakra unit, dealing with the ano-rectal disorders and other diseases, where Ksarakarma is indicated.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Prof. C. Bhuyan</td>
<td>Professor / Retired</td>
<td>M.D. (Ayu), Ph.D.</td>
</tr>
<tr>
<td>2 Dr. SK Gupta</td>
<td>Associate Professor &amp; I/C HOD</td>
<td>M.S. (Ayu)</td>
</tr>
<tr>
<td>3 Dr. TS Dudhamal</td>
<td>Assistant Professor</td>
<td>M.S. (Ayu)</td>
</tr>
<tr>
<td>4 Dr. VD Mahanta</td>
<td>Assistant Professor</td>
<td>M.S. (Ayu)</td>
</tr>
</tbody>
</table>

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</tr>
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<tr>
<td>1 M.S. (Ayu) Students</td>
<td>012</td>
</tr>
<tr>
<td>2 Ph.D. (Ayu) Scholars</td>
<td>006</td>
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<td>3 Theory / Practical classes conducted for M.S. (Ayu) including for foreign scholars under different schemes</td>
<td>416</td>
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<td>035</td>
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<tr>
<td>7 Papers published</td>
<td>009</td>
</tr>
<tr>
<td>8 Papers presented including Guest lectures</td>
<td>010</td>
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</tbody>
</table>

CLINICAL RESEARCH: Hospital Activities - General Data:

Patients visited at OPD : 7433
Patients admitted in IPD : 0623
Patients visited at Ano Rectal Clinic : 6217

No. of Surgeries conducted:

Arsha (Piles) : 072
Bhagandar (Fistula-in-Ano): 041
Parikartika (Fissure-in-Ano) : 029
Mutrawriddhi (Hydrocele) : 004
Antra Vridhhi (Inguinal Hernia) : 007
Unduka Puchha Shotha (Appendicitis) : 001
Asthi Sandhi Marma Vikara (Orthopaedic cases) : 070
Others : 023
**Total** : 177

**No. of Para-Surgical Procedures Conducted:**

Rakta mokshana : 247
Agni karma : 181
**Total** : 428

**No. of Matra Basti Administered in different disorders:**

Arsha (Piles) : 5655
Parikartika (Fissure-in-Ano) : 6834
Bhagandar (Fistula-in-Ano) : 2850
Guda Bhransha (Prolapse) : 0042
Guda Shotha (Proctitis) : 0880
Sannirodha Guda (Stricture) : 0046
Mutraghata (B.P.H) : 0084
No. of Uttara Basti : 0010

**Investigations & Referral:**

TB Patients referred : 021
AIDS patients referred : 004
Fistulogram : 050
HbsAg : 003
**Total** : 078

**Inclusion of New Para-Surgical Devices:**

1) Scientifically designed K.S. cabinet
2) Ano-rectal chair for sitz bath
3) Innovated shringavcharan device
4) Kshara products.
   a. Different types of K.S.
   b. Kshara varti
   c. Kshara malahara
   d. Kshara lotion
   e. Kshara plota
5) Lakshadi Plaster (Light Weight) : The plaster splint for Bhagna (Fractures)
RESEARCH ACTIVITIES:

**Ph.D. RESEARCH PROJECTS: (In Progress)**

1. A Clinical and Experimental Study of Pashanabhedadi Ghrita in the Management of Ashmari w.s.r. to Urolithiasis.
   
   **Scholar:** Dr. SK Gupta  
   **Guide:** Prof. Chaturbhuja Bhuyan / Prof. MS Baghel  
   **Co-Guide:** Dr. B Ravishankar

2. The Role of Kshrasutra in the Management of Parikartika (Chronic Fissure in Ano).
   
   **Scholar:** Dr. TS Dudhamal  
   **Guide:** Prof. Chaturbhuja Bhuyan / Prof. MS Baghel

   
   **Scholar:** Dr. Manoj L. Sonaje  
   **Guide:** Prof. KS Dhiman

   
   **Scholar:** Dr. RK Singh  
   **Guide:** Dr. MK Vyas.

   
   **Scholar:** Dr. Laxmikant SD  
   **Guide:** Dr. Manjusha R.

   
   **Scholar:** Dr. Sathish HS  
   **Co-Guide:** Dr. B Ravishankar  
   **Guide:** Dr. DB Vaghela

**M.S. (AYU.) RESEARCH PROJECTS: (Completed)**

1. A Controlled Clinical Study to Evaluate the Efficacy of Kshar Sutra Ligation in Management of Arsha (Haemorrhoids).
   
   **Scholar:** Dr. Meva Lal Gupta  
   **Guide:** Prof. Chaturbhuja Bhuyan  
   **Co-Guide:** Dr. SK Gupta

   Arsha (Haemorrhoids) is characterized by bleeding per rectum, constipation, pain and discharge. The management of advanced Arsha is surgical approach only. Haemorrhoidectomy is the prevailing treatment in modern surgical field, but satisfactory results are less. In this regard to answer with complete curative approach; Kshara Sutra Ligation method has been undertaken in Group A having 35 patients with a comparison study of Haemorrhoidectomy in Group B consisting of 26 patients. Present study revealed that kshar sutra ligation in comparison to haemorrhoidectomy was found more effective. The advantages like minimum hospital stay, no bleeding during or after operation, no post operative complications etc were found. It was also found cost effective and more acceptable without any adverse effect.
2. A Clinical & Experimental Study of Manjisthadi Ghrita on Vrana-Ropana.

**Scholar**: Dr. Jyoti. D. Baria  
**Guide**: Dr. SK Gupta  
**Co-Guide**: Dr. B. Ravishankar

An attempt was made to establish a suitable formulation for Vrana Shodhana, Vrana Ropana as well as Vaikritapaham. In this study, a group of 7 prominent drugs were selected to prepare the Manjishthadi Ghrita for evaluation. It was applied locally twice a day in post-operative wounds of piles and fissure in ano mainly for 21 days. The follow up period was 1 month after complete healing of wound to assess the Vaikritapaham property of the drug. Total, 45 patients were studied, 24 in Manjishthadi Group and 21 in Povidone Iodine group. The result of clinical study showed lesser duration for healing in Manjishthadi Group as compared to Povidone Iodine group with minimal scar formation. In experimental study, effect of wound healing activities were assessed by noting the contraction of wound size, days taken for complete healing, tensile strength and histopathological examination as well as incised area of the wound. The local application of trial drugs did not reduce the total time for complete healing. The study clearly indicated that Manjishthadi Ghrita has no influence over granulation tissue formation or its arrangement in the tissue which provides tensile strength to the structure it supports.


**Scholar**: Dr. Supreeth J. Lobo  
**Guide**: Prof. Chaturbhuja Bhuyan  
**Co-Guide**: Dr. SK Gupta, Dr. TS Dudhamal

To find out an alternate for *Apamarga K.S.* in respect of easy processing, *Snuhi Ksheera Sutra* without Kshara, advocated by Chakradatta and *Tilanala K.S.* were opted for clinical evaluation. Total 33 cases of *Bhagandara* were divided randomly into 3 groups, having 11 patients in each group. In Group A, *Snuhi Ksheera Sutra*; in Group B, *Tilanala K.S.* & in Group C, *Apamarga K.S.* was used. Important objective (Unit Cutting Time) & subjective parameters were assessed. Insignificant difference was observed statistically in the subjective parameters like pain; discharge etc among all three groups. *Tilanala K.S.* showed higher Unit Cutting Time (UCT) (9.76 days) while lower UCT in *Snuhi Ksheera Sutra* (7.42) was observed as compared to *Apamarga K.S.* (8.82). Thus, *Tilanala K.S.* can be recommended as a substitute for *Apamarga K.S.* and *Snuhi Ksheera Sutra* and can be employed in the recurrent fibrosed cases of Bhagandara particularly.

4. A Comparative Clinical Study of Fortified Gokshuraadi Guggulu and Dhanyak Gokshura Ghrita in the Management of Mootraghaata w.s.r. to BPH.

**Scholar**: Dr. Shreyas G. Bhalodia  
**Guide**: Dr. SK Gupta  
**Co-Guide**: Prof. Chaturbhuja Bhuyan, Dr. TS Dudhamal

Total 32 patients of *mootraaghaata* (BPH) were studied in three groups, divided randomly. In group A, *Gokshuraadi Compound Vatee* (GC) 500 mg was given three times a day with luke warm water ½ an hour after food. In group B, *Dhaanyaka Gokshura Ghrita* (DGG) as *maatraa basti* of 60 ml, once in a day, just after lunch was given and combined therapy of both formulations in group C was administered. Total 30 patients, 10 in each groups were completed the treatment course for 21 days. Finally it was concluded that 45.67 % improvement was seen in group A, 47.99 % in group B and
54.09 % in group C. The size of prostate gland was found reduced highly significant in group C. Hence, it was concluded that Gokshuraadi Compound Vatee and Dhaanyaka Gokshura Ghrita maatraa basti as combined therapy showed good result without any adverse effect and can be prescribed safely for mooitraaghaata (BPH) as a potent conservative therapy.


Scholar: Milankumar V. Solanki  
Guide: Dr. TS Dudhamal  
Co-Guide: Prof. Chaturbhuja Bhuyan, Dr. SK Gupta

The study was designed to evaluate the efficacy of Arshohara Malahara in 1st & 2nd degree piles. Total 30 patients were enrolled & randomly divided into two groups having 15 patients in each group. Patients of group - A were treated by per anal application of Arshohara Malahara and patients of group - B were treated by per anal instillation of Jatyadi Taila for 21 days. The assessments of the results were done on scoring pattern of symptoms. Paired 't' test was adopted for the statistical assessment to know the effect of therapy on each subjective as well as objective parameters. Encouraging results were observed in group - A, where all patients got complete cure by improving Malabaddhata (Constipation), Vedana (Pain), Raktaasrava (P/R Bleeding) and reduction (44%) in pile mass. Study emerged that Arshohara Malahara posses better symptomatic relief in cases of 1st and 2nd degree piles.

M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)


Scholar: Dr. Anil Verma  
Guide: Dr. SK Gupta  
Co-Guide: Dr. Dhaval Mankad, Dr. T. S. Dudhamal

2. Evaluation of Lakshadi Plaster in the Management of Simple Fracture.

Scholar: Dr. Kaushik B. Vyas  
Guide: Dr. TS Dudhamal  
Co-guide: Dr. Vijay Sata, Dr. SK Gupta

3. Evaluation of Pre-Anesthetic Effect of the Arka of Tagar and Jatamansi.

Scholar: Dr. Ranjana Arya  
Guide: Dr. SK Gupta  
Co-Guide: Dr. JP Mehta

4. Role of Agnikarma in Sandhivata.

Scholar: Dr. Nilesh Jethava  
Guide: Dr. TS Dudhamal  
Co-Guide: Dr. SK Gupta

5. A Clinical Study of Ksharasootra Application in the Management of Parikartika (Chronic fissure in ano).

Scholar: Dr. Jitendra Prajapati  
Guide: Dr. SK Gupta  
Co-Guide: Dr. TS Dudhamal
6. A Clinical Study of Guggulu Based Kshara Sootra in the Management of Bhagandara w.s.r. to Fistula in ano.

Scholar: Dr. Ashok Amin,            Guide: Dr. SK Gupta
Co-Guide: Dr. TS Dudhamal


Scholar: Dr. Sheetal Kumar            Guide: Dr. SK Gupta
Co-Guide: Dr. TS Dudhamal

8. A Clinical Study of Kanchanar Guggulu and Matra Basti of Dhanyak- Gokshur Ghrita in the Management of Mootraghata w.s.r. to BPH.

Scholar: Dr. Joyal Patel            Guide: Dr. TS Dudhamal
Co-Guide: Dr. SK Gupta, Dr. VD Mahanta

9. A Comparative Clinical Study of Siravyadha and Agnikarma in Management of Gridhrasi w.s.r. to Sciatica.

Scholar: Dr. Vaneet Kumar            Guide: Dr. TS Dudhamal
Co-Guide: Dr. SK Gupta, Dr. VD Mahanta

* * * * *
**Introduction:**

Shalakya specialty of Ayurveda deals with the sense organs situated above the neck along with the patho physiology of Head and Neck. Ophthalmology, Otorhinolaryngology & Oro-Dental branches of today's parlance are the jurisdiction areas of this vast branch of life science. PG degree course in this specialty is being run since 1982; thus, this institute in country is first to confer this degree in Ayurveda. In 2006, Dept of Shalakya came into independent existence in this institute. Since very beginning, department is actively engaged in the classical / literary, practical & research activities and till date 60 MD/MS (post graduates) and 10 Ph.D. doctors has qualified from this department & awarded degree by Gujarat Ayurved University, Jamnagar.

Presently, through this department common MS Shalakya degree course is being carried out and refractive errors (Myopia, particularly), ocular surface disorders (conjunctivitis, kerato conjunctivitis, dry eye etc.), computer vision syndrome, ocular allergy, lid problems, ARMD & cataract are the areas of research work in ophthalmology. Whereas in ENT, nasal allergy, sinusitis, otorrhea, tinnitus & deafness are in progress, and oro-dental section is mainly concentrating with oral health related problems like pyorrhea.

Department of Shalakya Tantra is well equipped and there are two refraction units. Fundus examination by direct & indirect method, slit lamp biomicroscopy, Schiotz & Applanation tonometry keratometry, A- Scanning, audiometric examination & nasal endoscopic examination are routinely done at the OPD & IPD level. Fundus Camera, Visual field analyzer and Infrastructure to setup a dental unit is in the process of procurement.

Shalakya Department has a practically functional Kriya Kalpa- Ocular therapy Unit & well equipped Eye OT in the hospital. All Kriya Kalpa procedures required in Shalakya related treatment, para-surgical procedures like blood-letting, Agnikarma along with major surgical procedures like cataract, glaucoma, lid repair, pterygium etc. are being done. Modern ophthalmology faculty is engaged SOS for such surgical works.

**Teaching Staff of the Department:**

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<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Prof. KS Dhiman</td>
<td>Professor / Head</td>
<td>M.D.(Ayu), Ph.D.</td>
</tr>
<tr>
<td>2 Dr. Manjusha R</td>
<td>Associate Professor</td>
<td>M.D.(Ayu),Ph.D.</td>
</tr>
<tr>
<td>3 Dr. DB Vaghela</td>
<td>Assistant Professor</td>
<td>M.D.(Ayu),Ph.D.</td>
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**Visiting Faculty**

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<thead>
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<tbody>
<tr>
<td>1 Dr. Piyush Mataliya</td>
<td>Ophthalmologist</td>
</tr>
<tr>
<td>2 Dr. Hitesh Vyas</td>
<td>Ophthalmologist</td>
</tr>
<tr>
<td>3 Dr. Niraj Bhatt</td>
<td>ENT Specialist</td>
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<tr>
<td>4 Dr. Amit Chavda</td>
<td>Dentist</td>
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Academic Activities: During the span of April 2010 - March 2011, the Dept. has involved in various activities. Brief data is as follows:

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<tr>
<td>1 M.S.(Ayu) Students</td>
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CLINICAL RESEARCH: Hospital Activities - General Data:

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<th>Activity</th>
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<tr>
<td>No. of patients visited OPD</td>
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<td>Patients admitted in IPD</td>
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<tr>
<td>Participation in Sarvaroganidanchikitsa camps</td>
<td>00014</td>
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<tr>
<td>School Health/ Vision Check-up and Refraction Camps</td>
<td>00010</td>
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<tr>
<td>Visual impairment Assessment Camps</td>
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No. of surgical, para surgical procedures, kriyakalpa & examinations conducted:

<table>
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<th>Activity</th>
<th>Total No.</th>
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<tbody>
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<td>1 Tarpana</td>
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<td>2 Nasya</td>
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<tr>
<td>3 Karnaparna</td>
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<td>4 KarnaDhupana</td>
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<td>5 Kshara Karma</td>
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<td>6 ShiroDhara</td>
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<td>7 NetraDhara</td>
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<tr>
<td>8 Bidalaka/Pindi</td>
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<td>9 Aschyotana</td>
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<td>10 Seka</td>
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<td>11 Anjana</td>
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<td>12 Pichu</td>
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<td>13 Gandusha</td>
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<td>14 Leech Application</td>
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<td>15 Audiometry</td>
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<td>16 Dhumpana</td>
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<td>17 Annalepa</td>
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<td>18 Nadisweda</td>
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<td>3 No. of refractions done</td>
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<td>4 No. of Nasal endoscopy done</td>
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RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (Submitted)

1. A clinical study on Shushkakshi paka with special reference to Dry Eye Syndrome and its management with Mridweekadi eye drops & Nayanamrruta eye ointment.

**Scholar:** Dr. Sreekumar K.  
**Guide:** Dr. Manjusha R.  
**Co-Guide:** Dr. Piyush D. Mataliya

102 patients were grouped into two. Group A (n=51) received Mridweekadi eye drops and Nayanamruta Eye Ointment, and Group B (n=51) received Ecotears eye drops & Lacrigel eye ointment. The dose of eye drops was one drop three times a day and ointment was 60 millimeters of thin ribbon into the lower conjunctival pouch during night time for two months in both eyes. Moderate improvement was found in the maximum number of patients in both groups. Marked improvement was found in higher number patients of Group A than the group B while group B showed moderate improvement in more patients. 7.84% of the patients were showed improvement less than 25% in group A, but in group B, all the patients got improvement more than 25%.

2. A comparative study of Dashana Samskara Churna Pratisarana and Dashana Samskara Paste application in the management of Shitada w.s.r. to Gingivitis.

**Scholar:** Dr. K.P.P. Peiris  
**Guide:** Dr. Manjusha R.

103 patients with Shitada were grouped into two. Group A (n=53) received Dashana Samskara paste, while Group B (n=50) received Dashana Samskara Churna in a dose of 1 gm 2 times a day local application on gums for 1 month. Both the groups were shown highly significant (P<0.001) in five main clinical features i.e. Rakta, Srava, Krishna, Prakledata, Mriduta and Danta Mamsa Shiryamanata. But percentage wise distribution shows more effect in group A than group B. Relief was also noticed in other symptoms like Paka, Sotha, Vedana, Chalata and Mukhadaurgandhata, which is statistically significant in both the groups. The relief in between the groups is insignificant. Highly significant results in both the groups were obtained in oral hygiene index, gingival index and gingival bleeding index but, comparative effect was statistically insignificant. Overall Dashana Samskara paste is comparatively more effective in the management of Shitada (Gingivitis).

Ph.D. RESEARCH PROJECTS: (In Progress)

1. An advance comparative study of Lodhradi Churna Pratisarana and Lodhradi paste application in the management of Dantaveshta w.s.r. to Peridontitis.

**Scholar:** Dr. Rajshree U.  
**Guide:** Dr. Manjusha R.

2. A comparative evaluation of Marsha and Pratimarsha Nasya in the management of Vataja Pratishyaya w.s.r. to allergic rhinitis.

**Scholar:** Dr. Varsha Chaudhary  
**Guide:** Dr. Manjusha R.  
**Co-Guides:** Prof. K. S. Dhiman, Dr. Ashok Shah, Dr. Hiten Maniyar
3. Evaluation of anti-cataract effect of Triphaladi Yoga and Elaneer Kuzhambu on experimental and clinical immature cataract w.r.to Timira.

**Scholar : Dr. Radhika Varma**
**Co-Guides: Dr. B Ravishankar**

**Guide: Dr. Manjusha R.**

**M.S. (AYU.) RESEARCH PROJECTS: (Completed)**

1. A clinical study to evaluate the efficacy of Trataka Yoga Kriya and eye exercises (Non Pharmacological Methods) in the management of Timira (Ammetropia and Presbyopia).

**Scholar : Dr. Gopinath**
**Co-Guide : Dr. Manjusha R.**

**Guide : Prof. KS Dhiman**

The clinical study was done on 66 patients of Timira in two groups of four sub groups each of Myopia, Hypermetropia, Astigmatism and Presbyopia. Group A was subjected to Eye exercises (Bates Method) and Group B was subjected to Trataka Yoga Kriya. After the enrolment of the patients for this study, signs and symptoms were assessed both subjectively and objectively before, during and after treatment. The study indicates that subjectively there are significant results in both the groups but objectively there is no much improvement.

2. A clinical study on Blepharitis and its management with Karpooradi Kuzumbu Anjana with or without Jalauka Avacharana.

**Scholar : Dr. Munna Kumar**
**Co-Guide: Dr. Manjusha R.**

**Guide : Dr. Manjusha R.**

Total 29 patients were grouped into two. Group A (n=15) received Jalaukavacharana and Karpuradi Kuzhampu Anjana and Group B (n=14) received only Karpuradi Kuzhampu Anjana. Group A showed better result in Antah Klinnam (Congestion), Kandu (Itching), Scaling, Srava, Ptylosis and Madrosis, while Group B showed better results in Shotha. In both groups all the patients i.e. 100% got marked improvement. None of the patients were completely cured, moderately improved, mild improved or remain unchanged. Though in present study, percentage of relief is higher in group A, but the difference was statistically insignificant. Recurrence was observed more in group B.


**Scholar : Dr. Lamin M**
**Co-Guide: Dr. Dharmendrasinh Vaghela**

**Guide : Dr. Dharmendrasinh Vaghela**

Out of total 30 patients none of the patient showed complete remission in both groups. Two patients were found with marked improvement i.e. 6.66%, one in each group. 16 patients were found with moderate improvement i.e.53.33% among them 9 patients in group A and 7 patients in group B. 10 patients were found with mild improvement i.e. 33.33% among them 4 patients in group A and 6 patients in group B. 2 patients were found with no change i.e. 6.66%. Both the groups showed significant results in subjective symptoms in which group B was expected to give a better results because of total treatment i.e. oral medicine, Nasya and Dhumpana.
M.S. (Ayu.) RESEARCH PROJECTS: (In Progress)

1. Study on ARMD (Dry-Eye) in context to Pitta Vidhagdha Dristi and its Ayurvedic Management.
   **Scholar:** Dr. Rajendra Soni  
   **Guide:** Prof. KS Dhiman  
   **Co-Guides:** Dr. Manjusha R., Dr. Amit Mehta

2. Clinical evaluation of Mahatriphaladi Ghrita in the management of Dry Eye Syndrome.
   **Scholar:** Dr. Rajesh Gadhiya  
   **Guide:** Prof. KS Dhiman  
   **Co-Guides:** Dr. Manjusha R., Dr. Piyush Mataliya

3. Role of Bilva taila Karna purna with and without Ashvagandhadya Ghrita in the management of Karnada and Karnakshweda (Tinnitus)
   **Scholar:** Dr. Hiral Brambhatt  
   **Guide:** Dr. Dharmendrasinh Vaghela  
   **Co-Guides:** Prof. KS Dhiman, Dr. Hiten Maniyar

4. A study in high risk dental caries patients and it's management with Gandusha.
   **Scholar:** Dr. Achyuta G Attara  
   **Guide:** Dr. Manjusha R.  
   **Co-Guides:** Dr. Dharmendrasinh Vaghela, Dr. VJ Shukla, Dr. Brijesh Ruparelia

   **Scholar:** Dr. Sadhana Parajuli  
   **Guide:** Dr. Manjusha R.  
   **Co-Guide:** Prof. KS Dhiman

6. Further Study on Standardization of Tarpana in Timira w.s.r. to Myopia.
   **Scholar:** Dr. Rekha Palawat  
   **Guide:** Dr. Manjusha R.  
   **Co-Guide:** Prof. KS Dhiman

7. A Clinical study to evaluate the role of Holistic Ayurvedic treatment in Pramehjanya Timira w.s.r. Background Diabetic Retinopathy.
   **Scholar:** Dr. Priyanka Rani  
   **Guide:** Prof. KS Dhiman  
   **Co-Guide:** Dr. Manjusha R.

8. A Clinical Study on the efficacy of Jivantyadi Ghrita Netra Tarpana and Chitrakadi Ghana Vati in the management of Vataja Timira w.s.r. to Astigmatism.
   **Scholar:** Dr. Jay Shah  
   **Guide:** Prof. KS Dhiman  
   **Co-Guide:** Dr. Manjusha R.

9. Role of Vyaghari Haritaki Avaleha & Anutaila Nasya in the management of Dustha Pratishyaya w.s.r. to Chronic Sinusitis.
   **Scholar:** Dr. Kunjal H. Bhat  
   **Guide:** Dr. Dharmendrasinh Vaghela  
   **Co-Guide:** Prof. KS Dhiman

10. A Pilot study on Ayurvedic management of Oral Submucous fibrosis.
    **Scholar:** Dr. Kundan R. Patel  
    **Guide:** Dr. Manjusha R.  
    **Co-Guide:** Dr. Dharmendrasinh Vaghela, Dr. Ashok Shah

* * * * *
Introduction:

The main objectives of the department are to impart teaching, training and research to the M.D. (Ayu.) scholars in the specialty of Roga Nidana & Vikriti Vijnana; provide diagnostic and treatment facilities and consultancy services to patients attending OPD and IPD of the RogaNidana and people of geriatric age group. Department also organizes training programmes for the students of foreign nationals who visit the institute under MoU signed with Gujarat Ayurved University & other institutes under WHO collaboration; and for three month introductory course of Ayurveda.

Teaching Staff of the Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prof. H.M. Chandola</td>
<td>Professor &amp; I/C Head</td>
<td>MD (Ayu), PhD, PGDIPR, D Yog.</td>
</tr>
<tr>
<td>2. Dr. D.H. Pandya</td>
<td>Assistant Professor</td>
<td>MD (Ayu)</td>
</tr>
</tbody>
</table>

Academic Activities: During the span of April 2010 -March 2011, the Dept. has involved in various activities. Brief data is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. M.D. (Ayu) Students</td>
<td>008</td>
</tr>
<tr>
<td>2. Ph.D. (Ayu) Scholars</td>
<td>002</td>
</tr>
<tr>
<td>3. Theory &amp; Practical Classes conducted</td>
<td>146</td>
</tr>
<tr>
<td>4. Demonstrations for 2nd &amp; 3rd year M.D. (Ayu)</td>
<td>638</td>
</tr>
<tr>
<td>5. Departmental Seminars conducted</td>
<td>005</td>
</tr>
<tr>
<td>6. Papers published</td>
<td>002</td>
</tr>
</tbody>
</table>

CLINICAL RESEARCH: Hospital Activities - General Data:

- No. of patients visited OPD: 5930
- Patients admitted in IPD: 0145
- Geriatric OPD: 0377
- Participation in Sarvaroganidanchikitsa camps: 0003

RESEARCH ACTIVITIES:

Ph.D. RESEARCH PROJECTS: (In Progress)

1. Role of Omega 3 fatty acid deficiency in etiopathogenesis of Depression (Mano avasada) & evaluation of Atasi (Linum usitatissimum) as adjuvant to Ashwagandhadyarishta in its management.

   **Scholar:** Dr. Ila Tanna  
   **Guide:** Prof. H.M. Chandola  
   **Co-Guide:** Prof. Rajesh Kumar
2. Epidemiological study of ageing in present day society.

**Scholar:** Dr. Darshna Pandya  
**Guide:** Prof. M.S. Baghel

**M.D. (AYU.) RESEARCH PROJECTS: (Completed)**

1. The Clinical study on Vicharchika and its management by Ayurvedic Classical Drugs with and without Snehapana

**Scholar:** Dr. Dipam H. Tripathi  
**Guide:** Dr. A.R. Dave  
**Co-Guide:** Prof. V.D. Shukla

Total 32 patients having the signs and symptoms of Vicharchika were registered for the present study, out of these, 28 could complete the study. Patients in group A (n=14) received Triphaladi Ghanavati, 2 tab. (500mg) thrice a day, Triphaladi Ghrita in the dose of 20 ml once daily and Avalgujadi Lepa for local application. While patients of group B (n=14) received Triphaladi Ghanavati, 2 tab. (500mg) thrice a day, and Avalgujadi Lepa for local application. The duration of the treatment was 6 weeks in both the groups. On applying paired ‘t’ test; it was found that both therapies provided highly significant results in cardinal symptoms (Kandu, Pidika, Shyavata, Daha, Srava) of Vicharchika along with marked percentage wise improvement. Overall, the efficacy of Group - A was better in comparison to the Group B.

**M.D. (Ayu.) RESEARCH PROJECTS: (In Progress)**

10. The clinical study on Aetio-pathogenesis of Sthaulya (Obesity) and its management by Ayurvedic drug compound

**Scholar:** Dr. Feeroz Khan  
**Guide:** Dr. A.R. Dave  
**Co-Guide:** Prof. H.M. Chandola

11. Study on Aetio-pathogenesis of Vibandha in Geriatric Population and role of Vaishwanara Churna in its Samprapti Vighatana

**Scholar:** Dr. Inya Lingu  
**Guide:** Prof. H.M. Chandola  
**Co-Guide:** Dr. D.B. Jadeja

12. A clinical evaluation of Saptavimshatika Guggulu & Haridra choorna in management of Type – II Diabetes w.s.r to Madhumeha

**Scholar:** Dr. Nirmal Alodaria  
**Guide:** Dr. D.H. Pandya  
**Co-Guide:** Prof. M.S. Baghel

13. Clinical evaluation of *Bilvadi Leha* in the management of Irritable Bowel Syndrome (IBS)

**Scholar:** Dr. Ramanand Tiwari  
**Guide:** Prof. M.S. Baghel  
**Co-Guide:** Dr. D.H. Pandya

14. Etiological effects of Brass industry on the health of workers in this industry

**Scholar:** Dr. Javed Ghumara  
**Guide:** Dr. D.H. Pandya  
**Co-Guide:** Prof. M.S. Baghel
15. Etiopathological study on Senile dementia and Evaluation of Bhramhi Ghrita in its Samprapti Vighatana

Scholar: Dr. Jyoti  
Co-Guide: Dr. V.J. Shukla, Prof. Rajesh Kumar

Guide: Prof. H.M. Chandola

16. An Epidemiological study regarding Samprapti of Gridhrasi w.s.r to Kriyakala

Scholar: Dr. Geeta Sathavane  
Co-Guide: Dr. D.H. Pandya

Guide: Prof. M.S. Baghel

* * * * *
Aims & Objectives

- To undertake detailed aspects on drug activity pertaining to drugs used in Ayurvedic therapeutics including folklore drugs.
- Basic Pharmacological research and providing pharmacological basis for the drugs under trial by scholars of PhD, MD (Ayu), MSc (Med. Plants) and M Pharm (Ayu).
- To undertake sponsored research projects.
- To offer technical consultancy in the areas related to drug activity and pharmacology of natural products.
- Preparation of project reports, technical reports and other related scientific literature including editing of books and reports.

Staff Position:

<table>
<thead>
<tr>
<th>Position</th>
<th>Present Incumbent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacologist</td>
<td>Dr. VJ Shukla (I/C)</td>
</tr>
<tr>
<td>Research Assistants</td>
<td>Dr. HG Makwana</td>
</tr>
<tr>
<td>Laboratory Technicians</td>
<td>Dr. Ashok BK</td>
</tr>
<tr>
<td>Laboratory Assistants</td>
<td>Mrs. UA Dodia</td>
</tr>
<tr>
<td></td>
<td>Miss. HB Aghera</td>
</tr>
<tr>
<td></td>
<td>Shri. Rakesh Gamit</td>
</tr>
<tr>
<td></td>
<td>Shri. Yogesh Dave</td>
</tr>
</tbody>
</table>

Academic Activities: During the span of April 2010 - March 2011, the laboratory has involved in various activities. Brief data is as follows:

- Ph.D. Scholars in the Laboratory: 004
- Theory and practical classes conducted: 145
- Paper published: 010
- Guest Lectures: 001

Ph.D. RESEARCH PROJECTS:

1. Dr. K. Srimannarayananana et al - Pharmaceutical standardization and toxicity study of Rasamaniya.
3. Dr. Kshama Gupta et al - Randomized placebo controlled clinico experimental study on sarasvata choorna in the management of generalized anxiety disorder.
5. Dr. Neky Mehta et al - Pharmaceutical standardization of Rasakarpur srava & Rasakarpur Malahara and their effect on Kshudra Kustha (RSBK).
M.D. (Ayu) RESEARCH PROJECTS:

1. Dr. Shraddha et al - A study of Shadguna balijarita Makaradhwaja prepared by Ashtasamkarita parada & is role on Madhumeha.
2. Dr. Mayur Barve et al - Shelf life study on Shatadhauta ghrita and Panchavalkala Sidha Shatadhauta ghrita w.s.r. to its wound healing activity.
4. Dr. Mayur Mashru et al - Pharmaceutical standardization of Sameera panaaga Rasa and its effect on Tamaka Shwasa (Bronchial Asthma)
5. Dr. Chandrashekhara Jagtap et al - Role of Shodhana in preparation of Tamra bhasma w.s.r. to its anti-hyperlipidemic effect.
6. Dr. Konwar Samvat Singh et al - A Study on Apathyanimittaja Prameha (Tyre-II Diabetes) and its management with Saptarangyadi ghanavati.

M. Pharma (Ayu) and MSc (Medicinal Plants) Scholars:

1. Hetal B Aghera et al - A detailed anti-arthritic, anti-inflammatory and analgesic activity of SANDHII ABHAY capsules
2. Paras Rasiklal Ajudia et al - A detailed pharmacological investigation into gastric cytoprotective activity of Menaquin Gold
3. Manish Ranjan et al - Evaluation of a herbal formulation for Hepatoprotective activity
4. Vijay Kumar et al - A detailed cardioprotective activity of Menaquin gold (MK-07)
5. Panchakshari Patil et al - A detailed ANTI-diabetic, anti-hyperglycemic and hypoglycemic activity of powder drugs A and B.
Introduction:

Pharmaceutical chemistry laboratory deals with the teaching and research in contest to Ayurvedic terms and methods. Quality control, Quality assurance and multi variant aspects of drugs are being explored mainly. The laboratory with bird view explore in two main divisions of chemical investigations 1) Analytical development and 2) Quality control. With these views the projects are being allotted and the thesis drugs are being evaluated as per Ayurvedic Pharmacopoeia of India. In addition to the path of drug development, methods developed by ADL segment were validated to assure and facilitate qualitative and quantitative analysis. Thus the laboratory was also actively associated with various academic works, research, technical and administrative activities of the institute and university. The laboratory extended its supportive role to various departments of the institute and also to the university pharmacy in the drug analysis.

Staff Position:

<table>
<thead>
<tr>
<th>Position</th>
<th>Present incumbent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical Chemist</td>
<td>Dr. VJ Shukla</td>
</tr>
<tr>
<td>Research Assistants</td>
<td>Dr. UB Bhatt</td>
</tr>
<tr>
<td>Laboratory Technicians</td>
<td>Dr. DB Khant</td>
</tr>
<tr>
<td>Laboratory Assistants</td>
<td>Shri. HM Doshi</td>
</tr>
<tr>
<td></td>
<td>Mrs. PH Barad</td>
</tr>
<tr>
<td></td>
<td>Mrs. HB Laheru</td>
</tr>
</tbody>
</table>

Academic Activities During the span of April 2010 - March 2011, the laboratory has involved in various activities. Brief data is as follows:

- Ph.D. Scholars in the Laboratory 004
- Theory and practical classes conducted 329
- Paper published 012
- Guest Lectures 001

Technical activities

- 45 samples of different stages like Raw material, intermediate and finished products etc. received from University Pharmacy have been studied.
- Technical and Laboratory assistance in the project work regarding safety and toxicological evaluation of coded drugs, CCRAS, New Delhi.

Quality control and Standardization aspects

- Quality control and Standardization work for Ph.D. thesis 25
- Quality control and Standardization M.D. (Ayu) thesis 30
- Quality control and Standardization M.Pharm (Ayu) thesis 15
- Quality control and Standardization M.Sc. (Med. Plant) 03
RESEARCH ACTIVITIES:

MD (Ayu)

✓ Standardization of “Akshi- Tarpana” and role of Jeevantyadi ghrita in the management of timira w.s.r. to myopia
  Scholar: Dr. Poonam  
  Co-Guide: Dr. VJ Shukla

M Pharm (Ayu)

✓ Quality control and standardization of Panchatikta ghrita
  Scholar: Narsingh Ram Kala  
  Guide: Dr. VJ Shukla

✓ Standardization of Sudarshana Ghana Vati – An Ayurvedic formulation
  Scholar: Ravindra Prakash  
  Guide: Dr. VJ Shukla

✓ Standardization and Quality control aspects of Nirgundi Taila - An Ayurvedic formulation
  Scholar: Komal Khanpara  
  Guide: Dr. VJ Shukla

✓ Phytochemical & Pharmacognostical evaluation of Bauhinia variegata Linn. And Bauhinia purpurea Linn. Barks (Caesalpiniaeae)
  Scholar: Esha Patel  
  Co-Guide: Dr. VJ Shukla

✓ A study on different collection methods of Aragvadha (Cassia fistula Linn.) Phaalamajja
  Scholar: Mahipal Jasani  
  Co-Guide: Dr. VJ Shukla

✓ Macroscopic, Microscopic and preliminary chemical evaluation of three resin containing seed drugs (Ipomoea nil, muricata and speciosa) of family convolvulaceae.
  Scholar: Jitendra Jain  
  Co-Guide: Dr. VJ Shukla

✓ Pharmaceutical development and evaluation of herbal oral gel
  Scholar: Chirag Markana  
  Co-Guide: Dr. VJ Shukla

✓ A Pharmaceutical development & analytical study on Lodharadi lepa
  Scholar: Nirav Vaghasiya  
  Co-Guide: Dr. VJ Shukla

✓ Pharmaceutical development of herbal nutraceutical jam w.s.r. to its short term stability studies
  Scholar: Saurabh Kulkarni  
  Co-Guide: Dr. VJ Shukla

✓ A Pharmaceutical and analytical study ofp herbal shampoo w.s.r. to its antimicrobial activity
  Scholar: Kashyap Bhut  
  Co-Guide: Dr. VJ Shukla

✓ Pharmaceutical development of liquid and gel of Panchavalkala w.s.r. to their antimicrobial activity
  Scholar: Palak Vyas  
  Co-Guide: Dr. VJ Shukla
M.Sc. (Medicinal Plants)

- **Phytochemical investigation on** *Pimpinella tragioides* (*Boiss*) - *Jafarie koochie alamooti*
  
  **Scholar:** Danoush Azargin  
  **Guide:** Dr. VJ Shukla

- **A Phytochemical investigation on roots of three different cultivated sugar cane** (*Ikshu mula*) *Saccharum officinarum* (*Linn*) - A folk plant.
  
  **Scholar:** Rekha Nirawane  
  **Guide:** Dr. VJ Shukla

- **Comparative evaluation of seeds of** *Cucumis sativus* *Linn.* and *Cucumis melo* Var. *Utilissimus roxb.* *Family Cucurbitaceae*
  
  **Scholar:** Lalchand  
  **Guide:** Dr. VJ Shukla  
  **Co-Guide:** Dr. VJ Shukla

- **Pharmaceutical and analytical evaluation of different samples of Kumari Juice** (*Aloe vera Mill*)
  
  **Scholar:** Vinay Sharma  
  **Co-Guide:** Dr. VJ Shukla

**Administrative activities:**

Staff members of the laboratory are involved in various administrative activities related with the Laboratory, Institute and University and some special duties allotted by state government at regular intervals. Pharmaceutical Chemist rendering duties for PGT-SFC-cell as co-ordinator and as Project Officer for CCRAS, Delhi unit at IPGT & RA.

**Guest Lecture:**

Lecture for PG students from Saurashtra University entitled “Isolation techniques in Natural products” at MM Science College, Morbi has been delivered.

**Collaborative Research:**

Co-Guide to the PhD study entitled “Evaluation of antioxidant property and toxicological assessment of *Polyalthia longifolia* Var. Pendula leaf” being carried-out under Dept. of Bio sciences, Saurashtra University, Rajkot.  

**Scholar:** Rajesh Dave

* * * * *
Introduction

The Pharmacognosy laboratory is mainly involved in standardization of Ayurvedic crude drugs by morphological and microscopical methods. The quality of the drugs is also assessed by their chemical tests. It maintains a museum and herbarium samples of many authenticated Ayurvedic medicinal herbs, their substitute and adulterants also.

Activities

Pharmacognosy laboratory is research oriented unit of IPGT & RA with multifarious activities listed below:

1. Providing teaching and guidance in identifying the raw material being selected for the research works of PhD, MD (Ayu), M Pharm (Ayu), MSc (Med. Pl.) Scholars of the institute.
2. Research on Ayurvedic Herbs.
5. Identification of crude drugs to be purchased for the Pharmacy.
6. Participation in seminars, workshops, symposia and presentation and publication of research papers etc.

Staff Position:

<table>
<thead>
<tr>
<th>Position</th>
<th>Present incumbent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>Harisha CR</td>
</tr>
<tr>
<td>Photo Artist</td>
<td>Bharat B Joshi</td>
</tr>
<tr>
<td>Laboratory Assistant</td>
<td>Bipin B Chavada</td>
</tr>
<tr>
<td>Laboratory Assistant (Plant Collector)</td>
<td>Preeti Pandya</td>
</tr>
</tbody>
</table>

Academic Activities

During the span of April 2010 - March 2011, the laboratory has engaged in teaching various aspects like Taxonomy, Pharmacognosy, Agricultural medicinal plants etc both in theory and practicals. Brief data is as follows:

- Theory and practical classes conducted: 165
- Paper published: 010
- Presentations: 003

Research Activities

- The laboratory has continued its broad based research activity related to quality control and standardization aspects of Ayurvedic drugs, studies of important medicinal plants etc. The laboratory is also associated in various academic, technical and administrative activities of the University.
- Established a well equipped laboratory for all pharmacognostic investigations. Plants were studied by Morphological and Microscopical characters.
- The laboratory has carried out all the work pertaining to the Pharmacognostic aspects of the thesis of scholars of different categories.
No. of Students Completed Pharmacognosy

✓ MD (Ayu.)         30
✓ PhD (Ayu.)         10
✓ M. Pharm (Ayu.)    04
✓ M.Sc. (Med plants) 04

Photographic Work

Photographic work including exhaustive photography of all drugs of plants, animal or mineral origin. The photographs of the research work carried out by the various students and staff of the University like PhD, MD (Ayu), MPharm, MSc (Med.PL) belonging to various department like Pharmacognosy, Pharmacology, Pharmaceutical chemistry, Dravyaguna, Rasashastra, Basic Principal, Pharmacy etc. have been carried out by him. His work is summarized in short as follows. During the period of report total 1540 coloured photographs and photomicrographs of the medicinal plant species have been exposed in the research microscope of the laboratory.

Departmental Future Activities

Department continuously doing the following activities:

✓ Rearranging of Raw Drugs
✓ Pharmacognosic Study of Collected Drugs : 25
✓ Collection of New Raw Drugs : 25
✓ Collection of New Herbarium : 56
✓ Separation of RET (Red Listed) Plant Drugs : 35

Museum

<table>
<thead>
<tr>
<th>No. of Herbarium</th>
<th>6300</th>
<th>No. of Species</th>
<th>1350</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Families</td>
<td>0146</td>
<td>No. of Crude Drugs</td>
<td>1250</td>
</tr>
<tr>
<td>No. of Species</td>
<td>0470</td>
<td>No. of Families</td>
<td>0120</td>
</tr>
</tbody>
</table>

Other Activities

Botanical Tour: With an objective to provide field identification of plants and different vegetations a botanical tour has been organized during 2nd week of February 2011 for the scholars of M.D. (Ayu) Dravyaguna and M.Sc. (Med. PL) scholars. During the visit identification of plants, herbarium methods, raw drug collection, preservation etc. have been taught to students. The tour covered Western ghats, SDM Ayurveda college and pharmacy, Alva's Ayurveda college and pharmacy, Kottakal Pharmacy, Mysore botanical garden, Ooty botanical garden, FRLHT Ayurveda hospital and garden etc. Different plant specimen, raw drugs were collected during the tour and are preserved in the laboratory.

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Activities

- **Teaching:** Theory and Practical classes in the subject of Biochemistry were conducted for the 1st MD (Ayu.) scholars.

- **Association with Clinical Research:** Total of 98,329 special as well as routine Biochemical investigations were carried out in 9,431 samples like blood, urine, etc. of OPD and IPD patients and animal. The research scholars of MD / MS (Ayu), PhD, M Pharm (Ayu) and M Sc (Med. Plant) availed the laboratory facilities for their thesis / research works.

<table>
<thead>
<tr>
<th>Name of Investigation</th>
<th>Total Investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blood Sugar</td>
<td>11247</td>
</tr>
<tr>
<td>2 Serum Cholesterol</td>
<td>07075</td>
</tr>
<tr>
<td>3 Serum Triglyceride</td>
<td>06838</td>
</tr>
<tr>
<td>4 Serum HDL</td>
<td>06765</td>
</tr>
<tr>
<td>5 Serum Urea</td>
<td>07554</td>
</tr>
<tr>
<td>6 Serum Creatinine</td>
<td>07699</td>
</tr>
<tr>
<td>7 SGPT</td>
<td>06648</td>
</tr>
<tr>
<td>8 SGOT</td>
<td>06158</td>
</tr>
<tr>
<td>9 Serum (Total) Protein</td>
<td>06712</td>
</tr>
<tr>
<td>10 Serum Albumin</td>
<td>06244</td>
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<tr>
<td>11 Serum Alkaline Phosphatase</td>
<td>05511</td>
</tr>
<tr>
<td>12 Serum Bilirubin-Tot al</td>
<td>05313</td>
</tr>
<tr>
<td>13 Serum Bilirubin-Direct</td>
<td>04221</td>
</tr>
<tr>
<td>14 Serum Uric Acid</td>
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<td>15 Serum Calcium</td>
<td>03045</td>
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<td>16 Serum Iron</td>
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<tr>
<td>17 Serum TIBC</td>
<td>00624</td>
</tr>
<tr>
<td>18 Serum CRP Quantitative</td>
<td>00031</td>
</tr>
<tr>
<td>19 Serum Acid Phosphatase</td>
<td>00045</td>
</tr>
<tr>
<td>20 Serum RA Quantitative</td>
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<tr>
<td>21 Serum Apolipoprotein-B</td>
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<tr>
<td>22 HbA1C (GhB)</td>
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<td>23 Serum Cholinesterase</td>
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<td>24 Micro Albumin</td>
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<tr>
<td>25 LDH</td>
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<td>26 IgG</td>
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<td>27 LDL Direct</td>
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<td>28 ASO Titre</td>
<td>00044</td>
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<tr>
<td>29 Ferritin</td>
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<tr>
<td>30 Cortisol</td>
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</tr>
<tr>
<td>31 T3</td>
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<tr>
<td>32 T4</td>
<td>00001</td>
</tr>
<tr>
<td>33 TSH</td>
<td>00001</td>
</tr>
</tbody>
</table>

===================================================
Total 98,329

* * * * *
Introduction: During the year 2010-11, pathology laboratory has actively associated with activities like research, training, technical, academic and administrative aspects in the institute. Brief details are as follows:

Teaching: The laboratory imparts practical training in respect of various pathological investigations of blood, urine, stool, sputum and semen etc. to the scholars of the institute. The theoretical description of the relevant subject also will be taught to 1st M.D. (Ayu.) scholars.

Research: The department is associated in carrying out of all routine as well as special investigations required for research, which is a part of the curriculum of PhD, MD / MS (Ayu) scholars. Hematological profile of animal for drug toxicity is also being carried out in the laboratory.

Technical activity: Pathology laboratory also runs DM Centre under RNTCP programme which is run by Govt. of India. In this programme, examination of sputum from suspected cases is done for AFB.

During the year 2010 - 2011 total 1,11,651 various investigations were carried out from 21398 different pathological samples of blood urine, stool, sputum, semen etc.

<table>
<thead>
<tr>
<th>Name of Test</th>
<th>No. of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total WBC (TC)</td>
<td>08820</td>
</tr>
<tr>
<td>2. Diff. WBC (DC)</td>
<td>08819</td>
</tr>
<tr>
<td>3. Hemoglobin (Hb)</td>
<td>08834</td>
</tr>
<tr>
<td>4. ESR</td>
<td>08906</td>
</tr>
<tr>
<td>5. RBC Count</td>
<td>07957</td>
</tr>
<tr>
<td>6. PCV</td>
<td>08818</td>
</tr>
<tr>
<td>7. Platelet Count</td>
<td>04854</td>
</tr>
<tr>
<td>8. BT and CT</td>
<td>03338</td>
</tr>
<tr>
<td>9. Blood Group and Rh. Factor</td>
<td>01228</td>
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<tr>
<td>10. MP</td>
<td>00110</td>
</tr>
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<td>11. Blood Indices</td>
<td>05172</td>
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<tr>
<td>12. AEC</td>
<td>00559</td>
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<tr>
<td>13. RA Test</td>
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<td>14. CRP Test</td>
<td>00196</td>
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<tr>
<td>15. HIV</td>
<td>00584</td>
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<tr>
<td>16. HBSAg</td>
<td>00557</td>
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<tr>
<td>17. VDRL (Syphilis)</td>
<td>00658</td>
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<tr>
<td>18. Peripheral Smears</td>
<td>01684</td>
</tr>
<tr>
<td>19. Rat (CBC)</td>
<td>04717</td>
</tr>
<tr>
<td>20. Sputum</td>
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<tr>
<td>21. Urine (Alb. Sugar, Microscopy)</td>
<td>24753</td>
</tr>
<tr>
<td>22. Stool (Macro, Microscopic)</td>
<td>05669</td>
</tr>
<tr>
<td>23. Semen</td>
<td>05256</td>
</tr>
</tbody>
</table>

===============================

Total                                      1,11,651

===============================

* * * * *
Staff Setup:

Senior Physician: Dr. NH Pandya

Teaching & Education:

Medical examination, Diagnosis and providing technical inputs in the OPD / IPD of the institute is the part of the activities. The investigations done, particularly of the research cases will be interpreted, whenever needed with an intension to provide clarity of the research findings. In addition to this, bed side education and clinical discussion with the scholars is also being carried-out.

Research & Thesis Work:

PhD and MD (Ayu) scholars are being assisted for their thesis and research works.

Committee and Meetings :

Member of Technical Advisory Committee.

* * * * *
**Introduction**

IPGT & RA is providing healthcare facilities to the needy society through its hospital, which also imparts teaching and training to the Post Graduate and Post Doctoral scholars in particular and other scholars visiting the institute at regular intervals. The hospital is well equipped with modern medical facilities like sonography, X-Ray, ECG, dentistry, optometry etc. and is supported with laboratories like biochemistry, pathology etc. Surgeons, Gynaecologists, Sonologists, Radiologists, Paediatricians, ENT Specialists etc. from modern field also rendering services as visiting faculty in their respective fields. The hospital has an average of 552/day OPD during the year 2010-11. IPD has a capacity of admitting 180 patients, where the services are being provided free of cost. Hospital has the support of well qualified physicians and is equipped with different specialized wings, operation theatre and maternity room, provides specialized treatments like Panchkarma, Ksharasutra and Kriya Kalpa along with the treatment for various diseases.

**Hospital Development Activities**

- 'The Hospital Information Booklet' first ever in Ayurveda, a booklet of 25 pages in English was prepared by Dr DG Pancholi, RMO. This helps the patients in particular and for staff in general.
- 'The PG HOSPITAL WEBSITE' is being designed.
- The PG Hospital was represented in the National Conference on Hospital and Healthcare Management by Dr DG Pancholi, RMO on as 26th March 2011 at Patan, Gujarat. Dr DG Pancholi, RMO also participated in 3 days Management Development Program on Quality Aspects in Healthcare Administration from 23-25 March 2011 at the University.

**Hospital Administration**

- Hospital Superintendent (Ex-Officio) / Director - Prof. MS Baghel
- RMO : Dr. Dhanwantari G. Pancholi
- Matron : Smt. BR Joshi

Hospital has Ayurvedic consutlants from teaching faculty and modern part-time consultants like General surgeon, Ophthalmologist, Anaesthetist, Gynaecologist, Dentist, ENT Surgeon, Radiologist and Physiotherapist etc.
Statistics:

**OPD Statistics:** OPD has an average of 552 patients / day attendance during the year.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Cases</td>
<td>22603</td>
<td>24935</td>
<td>3931</td>
<td>71444</td>
</tr>
<tr>
<td></td>
<td>upto Dec.-10</td>
<td>upto Dec.-10</td>
<td>upto March-11</td>
<td></td>
</tr>
<tr>
<td>Old Cases</td>
<td>39187</td>
<td>46756</td>
<td>5409</td>
<td>91352</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61790</td>
<td>71691</td>
<td>9340</td>
<td>162796</td>
</tr>
<tr>
<td>Thesis Cases</td>
<td></td>
<td></td>
<td></td>
<td>3000</td>
</tr>
<tr>
<td>Satellite clinics</td>
<td></td>
<td></td>
<td></td>
<td>3958</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td></td>
<td></td>
<td>169754</td>
</tr>
</tbody>
</table>

Out Reach Services:

Under this activity Institute conducts weekly OPDs at Sasoi Garden, INS Valsura, Jamnagar Jail, Old Age Home. The teachers of IPGT & RA render their services at the Centre.

**School Health Care:** During the reporting year; total 08 camps were organized by the Hospital in 8 Schools of the Jamnagar city. Total 3350 School Children were screened for Obesity and 118 Children were detected as obese. Healthcare facilities have been provided to the affected by the institute.

**Special Camps Organized**

Institute has organized popularization programmes and diagnostic camps in the rural areas of Jamnagar. During the current reporting year; following 14 camps were organized.

<table>
<thead>
<tr>
<th>Name of the Place</th>
<th>Date</th>
<th>Patients Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwarka, Dist. Jamnagar</td>
<td>11.04.2010</td>
<td>170</td>
</tr>
<tr>
<td>Porbandar</td>
<td>25.04.2010</td>
<td>159</td>
</tr>
<tr>
<td>Lalpur, Dist. Jamnagar</td>
<td>02.05.2010</td>
<td>189</td>
</tr>
<tr>
<td>Udoyagnagar, Jamnagar</td>
<td>23.05.2010</td>
<td>156</td>
</tr>
<tr>
<td>Avas 2, Jamnagar</td>
<td>30.05.2010</td>
<td>060</td>
</tr>
<tr>
<td>Vankiya, Dist. Jamnagar</td>
<td>13.06.2010</td>
<td>208</td>
</tr>
<tr>
<td>Jambuda, Dist. Jamnagar</td>
<td>27.06.2010</td>
<td>250</td>
</tr>
<tr>
<td>Shri Soni Samaj Ni Vadi, Jamnagar</td>
<td>08.08.2010</td>
<td>176</td>
</tr>
<tr>
<td>Dwarka, Dist. Jamnagar</td>
<td>22.08.2010</td>
<td>112</td>
</tr>
<tr>
<td>Dwarka, Dist. Jamnagar</td>
<td>26.09.2010</td>
<td>170</td>
</tr>
<tr>
<td>Chandragarh, Dist. Jamnagar</td>
<td>17.12.2010</td>
<td>221</td>
</tr>
<tr>
<td>Limdi, Dist. Surendranagar</td>
<td>09.01.2011</td>
<td>350</td>
</tr>
<tr>
<td>Okha, Dist. Jamnagar</td>
<td>13.02.2011</td>
<td>229</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2512</strong></td>
<td></td>
</tr>
</tbody>
</table>
Specialty Camps in Hospital: Institute also organizes Specialty camps in the Hospital for providing specialization health care facilities to general public this activity also provides popularization to Ayurvedic specialties.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Date</th>
<th>Organizing Dept.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhagandara (Fistula)</td>
<td>19.04.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Mootraghata (BPH)</td>
<td>28-29.04.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Ashmari (Urolithiasis)</td>
<td>5-6.05.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Diabetes</td>
<td>27.07.2010</td>
<td>Panchkarma</td>
</tr>
<tr>
<td>Oligozoospermia and Sexual Disorder</td>
<td>27.08.2010 &amp; 03.09.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Sexual Disorder</td>
<td>20-21.08.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Diabetes</td>
<td>16-17.08.2010</td>
<td>Basic Principles</td>
</tr>
<tr>
<td>Skin diseases</td>
<td>25-27.08.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Arsha</td>
<td>13.09.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Sexual Disorder</td>
<td>17-18.09.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Diabetes</td>
<td>03-14.09.2010</td>
<td>Basic Principles</td>
</tr>
<tr>
<td>Blood Donation Camp</td>
<td>02.10.2010</td>
<td>IPGT &amp; RA</td>
</tr>
<tr>
<td>Mootraghaata</td>
<td>24-25.11.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Diabetes</td>
<td>10-18.11.2010</td>
<td>Basic Principles</td>
</tr>
<tr>
<td>Mootraghaata</td>
<td>18-19.11.2010</td>
<td>Shalya</td>
</tr>
<tr>
<td>Oligozoospermia</td>
<td>19-26.11.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Pandu in old age</td>
<td>14-16.12.2010</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>03.01.2011</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Vicharchika</td>
<td>3-4.01.2011</td>
<td>Shalya</td>
</tr>
<tr>
<td>Pandu in old age</td>
<td>22-25.02.2011</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>Skin disease</td>
<td>21-22.02.2011</td>
<td>Shalya</td>
</tr>
<tr>
<td>Asthi Bhagna</td>
<td>28.02.2011 &amp; 01.03.2011</td>
<td>Shalya</td>
</tr>
</tbody>
</table>

IPD Statistics

Total 180 beds are allotted to various P. G. Specialties. There are six special wards (paid) in the hospital.

<table>
<thead>
<tr>
<th>Department</th>
<th>Beds Allotted</th>
<th>Pts. admitted</th>
<th>Bed Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kayachikitsa</td>
<td>24</td>
<td>311</td>
<td>59.21</td>
</tr>
<tr>
<td>Panchakarma</td>
<td>40</td>
<td>767</td>
<td>68.86</td>
</tr>
<tr>
<td>Shalya</td>
<td>27</td>
<td>626</td>
<td>89.77</td>
</tr>
<tr>
<td>Shalakya</td>
<td>19</td>
<td>192</td>
<td>36.79</td>
</tr>
<tr>
<td>Maulik Siddhanta</td>
<td>06</td>
<td>093</td>
<td>63.78</td>
</tr>
<tr>
<td>Rasa Shastra &amp; BK</td>
<td>05</td>
<td>090</td>
<td>76.71</td>
</tr>
<tr>
<td>Drvagaguna</td>
<td>05</td>
<td>041</td>
<td>35.72</td>
</tr>
<tr>
<td>SR &amp; PT</td>
<td>24</td>
<td>968</td>
<td>91.23</td>
</tr>
<tr>
<td>Kaumara Bhritiya</td>
<td>18</td>
<td>239</td>
<td>53.54</td>
</tr>
<tr>
<td>Special Cabin</td>
<td>06</td>
<td>039</td>
<td>63.28</td>
</tr>
<tr>
<td>Rogavigyan</td>
<td>06</td>
<td>085</td>
<td>76.52</td>
</tr>
<tr>
<td><strong>180</strong></td>
<td><strong>3451</strong></td>
<td><strong>Average 64%</strong></td>
<td></td>
</tr>
</tbody>
</table>
Number of deliveries conducted: 52

Surgeries (Minor / Major):

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of Surgeries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major</td>
<td>Minor</td>
</tr>
<tr>
<td>Shalya</td>
<td>08</td>
<td>169</td>
</tr>
<tr>
<td>Shalakya</td>
<td>29</td>
<td>096</td>
</tr>
<tr>
<td>SR &amp; PT</td>
<td>00</td>
<td>226</td>
</tr>
</tbody>
</table>

General Statistics

X-ray:

<table>
<thead>
<tr>
<th>Total no. of X-Ray patients</th>
<th>Film size</th>
<th>Total X-Rays</th>
</tr>
</thead>
<tbody>
<tr>
<td>1526</td>
<td>1316</td>
<td>0560</td>
</tr>
</tbody>
</table>

ECG No. of Patients: 291
Sonography: 2752
- Male General USG: 0377
- Female: 2375

Future Development Plans:

✓ Re-orientation Programme for Hospital Staff Personnel and paramedicals.
✓ Hospital Services Development programme: Review, assessment and possible areas of development through available resources.
✓ Overall Hospital Quality Improvement project: to meet the Quality Standards for Ayurved Hospital.
✓ NABH accreditation for our Hospital.

* * * * *
Library of the University made steady progress during the year under report.

**Staff Information:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shri SM Jani</td>
<td>Librarian</td>
</tr>
<tr>
<td>Shri MA Kanakhar</td>
<td>Jr. Clerk Cum Typist (D.V.)</td>
</tr>
<tr>
<td>Shri HK Jadeja</td>
<td>Jr. Clerk Cum Typist (D.V.)</td>
</tr>
<tr>
<td>Shri KL Jadeja</td>
<td>Library Attendant</td>
</tr>
</tbody>
</table>

- Total number of books issued: 04580
- Total number of journals issued: 23700
- Total number of books: 32977
- Total number of books purchased: 00276 worth of Rs. 1,04,670/-
- Total number of Journal subscribed: 00034 worth of Rs. 2,68,459/-
- Total No. of Thesis available: 03556
- Daily Newspapers subscribed: 00008

**Library Users:** Library is being used by different sections of the Ayurvedic fraternity.

- UG, PG, PhD Students from IPGT & RA, IAPS, IMPS etc.
- Teaching faculty,
- Administrative Staff.
- Trainee Teachers & Practitioners.
- Faculty and Scholars of Yoga & Naturopathy.
- International Scholars under different programmes.
- Overall 1,80,366 students of different sections used the reading room of the library during the current year.

**Subject Strength of Library:** Library has a vast collection of books concerned with Medical sciences, Veda, Purana, Upnishad, Literature, Yoga, Naturopathy of different languages ranging from Sanskrit, Hindi, Gujarati, English etc.

**LIBRARY CLOSED:** The library will be closed during all National Holidays & festivals.

**MANUSCRIPTS:** University Library has vast collection of manuscripts, out of which 515 manuscripts belonging to Ayurveda have been digitized.

**COMPUTER FACILITIES:**

INFLIBNET (UGC), Ahmedabad design SOUL Soft Ware purchased for Library.
Introduction:

International Center for Ayurvedic Studies (ICAS) is one of the independent Self Finance Institute established by Gujarat Ayurved University in 1999. ICAS has been running various short and long term courses for foreign nationals with the help of two important institutes of Gujarat Ayurved University viz. IPGT & RA & Gulab kunverba Ayurved Mahavidyalaya. In the reporting academic year of 2010-11 following training activities were conducted at IPGT & RA by the center:

Training Program for Internees: Clinical training for Ayurvedic students of Reidman College, Israel was conducted from September 15th 2010 to October 13th 2010. Total 05 students attended the programme where in clinical / practical demonstrations were given by clinical as well as non clinical departments of the institute. Dr. Mandip Kaur coordinated the programme.

Short term Training Programmes: 6 weeks Training programme for WHO nominated fellows from Nepal was organized from 08.11.2010 to 17.12.2010. Dr. Santosh Bhatted coordinated the programme.

Introductory Course in Ayurveda: 3 months Introductory Course was another programme organized by the centre, where 10 scholars from different countries (04 from USA, 01 each from France, Romania, Japan, Zimbabwe, Turkey and Colombia) took participation. The duration of the programme was 01.11.2010 to 31.01.2011 and coordinated by Dr. Mandip Kaur.

Foreign visits by the Faculty: During the current reporting year, five faculty members visited abroad on different activities. The below are the brief details.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Details of visit</th>
<th>City &amp; Country</th>
<th>During</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Prof MS Baghel</td>
<td>8th International Symposium on Ayurveda</td>
<td>Normandy, France</td>
<td>16-19th Sept. 10</td>
</tr>
<tr>
<td></td>
<td>Natura Farms</td>
<td>Berlin, Germany</td>
<td>20-22nd Sept. 10</td>
</tr>
<tr>
<td>2 Prof RR Dwivedi</td>
<td>Symposium on Ayurveda - Integrative Medicine in German Health System</td>
<td>Berlin, Germany</td>
<td>22nd Oct. 2010</td>
</tr>
<tr>
<td>3 Prof HM Chandola</td>
<td>To deliver lectures and conduct seminars and periodical trainings</td>
<td>AYUSH Information Cell, Kaula Lumpur, Mauritius</td>
<td>28.02.10 to 13.03.10</td>
</tr>
<tr>
<td>4 Dr AB Thakar</td>
<td>8th International Symposium on Ayurveda</td>
<td>Normandy, France</td>
<td>16-19th Sept. 10</td>
</tr>
<tr>
<td>5 Dr Galib</td>
<td>2nd BIMSTEC meeting on the Network of National Centers of Coordination in Traditional Medicine</td>
<td>Ministry of Public Health, Bangkok, Thailand</td>
<td>29.08.2010 to 01.09.2010</td>
</tr>
</tbody>
</table>
IPGT & RA conducts MPharma (Ayu) and MSc (Medicinal Plants) courses under Self Finance Scheme.

**Academic activities:**

During the year 2010-2011, both theory and practical classes were conducted regularly according to the timetable. Examinations were conducted by Gujarat Ayurved University as per the schedule. Five students in first M.Sc. (Medicinal Plants) and Six students in final M.Sc. (Medicinal plants), fifteen students in final year M. Pharm (Ayu.) and eleven students in first year M. Pharm (Ayu.) are taking examination during this year.

**Student admission:**

Six candidates were admitted to first year M.Sc. (Medicinal Plants) course for the year 2010-2011. Twenty candidates were admitted to M.Pharm (Ayu.) course. Twenty candidates two were from modern B. Pharm (Ayu.) stream and the remaining were from B. Pharm (Ayu.) stream.

**Research activities:**

**Research studies carried out as a part of M.Pharm (Ayu.) dissertation assignment**

**Ayurvedic Pharmaceutics (Rasashastra and Bhaishajya Kalpana).**

1. **“Pharmaceutical development of Herbal Mouthwash”**  
   **Scholar** : Kunal M. Gohil,  
   **Guide** : Prof. PK Prajapati

**Ayurvedic Plant Sciences (Dravyaguna Vigyan).**

1. **Effect of Shodhana on krishna Dhattura (Datura metel Linn.) seeds - A Phytochemical Evaluation.**  
   **Scholar** : Barvadiya Kalpesh,  
   **Guide** : Dr. K Nishteshwar

2. **Effect of Shodhana on sweta Dhattura (Datura innoxia Mill.) seeds - A Phytochemical Evaluation.**  
   **Scholar** : Pandya Devarshikumar,  
   **Guide** : Dr. RN Acharya

**Pharmacognosy & Phytochemistry of Ayurvedic Drugs.**

1. **Pharmacognostical and Phytochemical investigations of three Solanaceous seed drugs - Datura metel Linn., D. stramonium Linn. and D.innoxia Mill.**  
   **Scholar** : Thakar Jaydeep,  
   **Guide** : Dr. MG Chauhan
Pharmaceutical Analysis & Standardization of Ayurvedic Drugs.

1. Quality control and standardization aspects with application of cluster analysis of Karanjadi Taila an Ayurvedic formulation
   
   Scholar : Kadri Zabin Naaz, Guide: Dr. VJ Shukla

2. Standardization & optimization of T.L.C. by simplex & genetic algorithm in trimad & Trikashik churna
   
   Scholar : Panchal Pratik Guide: Dr. VJ Shukla

3. Standardization & quality control aspects of Trikatu Churna an Ayurvedic formulation
   
   Scholar : Patel Vimisha, Guide: Dr. VJ Shukla

Pharmacology & Toxicology of Ayurvedic Drugs.

1. Adaptogenic and anti-stress activity of Wild (Vanya) and Cultivated (Gramya) Varieties of Amalaki (Emblica officinalis)
   
   Scholar : Apurv Sharma Guide: Dr. VJ Shukla

2. Pharmacological evaluation of Symphysorema polyandrum wight for Anti-inflammatory and analgesic activities
   
   Scholar : Ravindra Dwivedi Guide: Dr. VJ Shukla

3. Evaluation of Anti-urolithiatic activity of Veerataru kwatha
   
   Scholar : Vivek Kumar Guide: Dr. VJ Shukla

Research studies carried out as part of M.Sc. (Medicinal plants) dissertation assignment.

Pharmacology:

1. Pharmacological evaluation of Nelsonia canescens (Lam) spreng root for Anti-inflammatory and analgesic activities.
   
   Scholar : Behzad Mohadessi Guide: Dr. VJ Shukla

Phytochemistry:

1. Comparative Phytochemical Investigations on source plants of Madhusnuhi.
   
   Scholar : Dr. Jyothi T. Guide: Dr. VJ Shukla
Pharmacognosy:


   Scholar: Patel Dimple  
   Guide: Dr. MG Chauhan

Ph.D. Students:

Mr. Harisha CR submitted abstract of PhD and pre submission seminar is cleared. Mr. Pankaj Nariya and Mr. Nayan Bhalodiya submitted their abstracts of PhD. Miss. Hitaba Gohil, Mr. Hemang Joshi, Dr. Sulakshan Chavan, Miss. Kalpu Kotecha, Miss. Preeti Pandya, Dr. Varun Gupta, Mr. Hardik Soni, Mr. Manish Vyas and Mr. Krunal Doshi are continuing their research study. Progresses of the projects are being monitored by the Department Research Committee.

Faculty Members (Contract Basis)

Teaching staff: Prof. M. G. Chauhan – Visiting Professor, Miss. Vyas Palak (RS & BK), Miss. Renuka Omprakash (Phytochemistry), Mr. Kshitij Chauhan (Pharmacognosy), Mr. Vijay Kumar (Pharmacology).

Accounts Section: Shri. Kamal Gandhi (Part time)

Administration Section: Jr. Clerk: Mr. Alpesh D. Mehta (Daily wages).

Faculty Members (Co-opted and Honorary):

Faculty members of IPGT & RA from the Dept. of Rasa Shastra, Dravya Guna, Pharmacology, Pharmaceutical Chemistry, Pharmacognosy work as supporting faculty for these courses. Other faculties of institute also contribute in conducting classes as per need.

* * * * *
During the current reporting year 2010-2011; the institute conducted a number of activities. A brief is as follows:

**WEEKLY SEMINARS:**

Total 40 Weekly seminars were organized, where MD / MS (Ayu) scholars presented their respective research works.

**SAMHITA PATHANA:**

Two Samhita Pathan were conducted. Charaka Samhita pathan was done during the eve of Ganesh Chaturthi and Sushrut Samhita pathan during Vasant Panchami.

**WORKSHOPS:**

Three workshops were organized during 2010-2011.

1. National Workshop on "Asthishandhi Marmabhiguata & Sports Medicine" as a part of 55th Foundation Day of IPGT & RA, during 20th - 21st July 2010. On the inaugural ceremony; well known scientist, Prof. MS Valiathan from Manipal delivered "PM Mehta Memorial Lecture" on "Science looks at Ayurveda".

2. With an objective of improving skill and competence in PG and PhD scholars, the institute organized a Workshop on "Biostatistics" during 20th - 21st August 2010. Prof N. Shree Kumaran Nair from Manipal University provided guest lectures during the two days.

3. Workshop on "Atomic Absorption Spectroscopy" was organized by Pharmaceutical Chemistry Laboratory during 6th - 8th February 2011.

**GUEST LECTURES:**

During this academic year, total Eight Guest lectures were organized, where in the below speakers from national and international levels were invited to deliver lectures.
<table>
<thead>
<tr>
<th>No</th>
<th>Speaker</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr. Sunil Nandaraj, Administrative Officer, WHO Country Office India, Delhi</td>
<td>Activities of WHO</td>
<td>13.04.2010</td>
</tr>
<tr>
<td>2</td>
<td>Prof. Meera Aurangabadkar, Head, Roga Nidana &amp; VV, Govt. Ayu College, Nagpur</td>
<td>Vatavyadhi &amp; Basti</td>
<td>02.07.2010</td>
</tr>
<tr>
<td>3</td>
<td>Prof. Ramashastry, Dept. of Kaya Chikitsa, Hyderabad</td>
<td>Madhueha (DM) and Its Management an Ayurvedic Perspective</td>
<td>20.09.2010</td>
</tr>
<tr>
<td>4</td>
<td>Shri. NS Yadav, IFS, Member Secretary, Gujarat Bio-Diversity Board.</td>
<td>Biological Diversity Act 2002</td>
<td>04.10.2010</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Gopal Vashishtha USA</td>
<td>Symbiohealth - symbiotic relationship between modern medicine &amp; Ayurveda</td>
<td>30.10.2010</td>
</tr>
<tr>
<td>6</td>
<td>Swami Sarvasthananda Ji, Rajkot</td>
<td>Today’s Youth and Swami Vivekananda</td>
<td>12.01.2011</td>
</tr>
<tr>
<td>7</td>
<td>Shri Subhash Trivedi, IPS, Superintndent of Police, Jamnagar</td>
<td>Awareness &amp; publicity against corruption</td>
<td>01.02.2011</td>
</tr>
<tr>
<td>8</td>
<td>Prof. Mayusuki Mikagi, Japan</td>
<td>Study on the preparation of Japanese Ksharasutra</td>
<td>08.02.2011</td>
</tr>
</tbody>
</table>

**TRAINING PROGRAMMES:**

During the current reporting year; different training programmes like ToTP, RoTP, OTP, CME etc. have been organized by the institute. These programmes are sponsored by Dept. of AYUSH and mediated through Rashtriya Ayurveda Vidyapeeth, New Delhi. Brief details are as follows:

**Continuing Medical Education (CME):**

A three days CME [Module - II] was organized by Dept. of Kaumara Bhritya during 7\textsuperscript{th} - 9\textsuperscript{th} March 2010.

**Re-orientation Training Programme (RoTP):**

Organized by Dept. of Shalya Tantra during 5\textsuperscript{th} - 10\textsuperscript{th} April 2010

**Training of Trainers Programme (ToTP):**

With an objective of developing module presentations based on UG Syllabus framed by CCIM, two programmes were organized to the concerned subject experts by the institute. The finalized presentations during the ventures were forwarded to Rashtriya Ayurveda Vidyapeeth, New Delhi.

1. Dept. of Rasa Shastra and Bhaishajya Kalpana : During 5\textsuperscript{th} - 11\textsuperscript{th} January 2011
2. Dept. of Shalakya Tantra: During 7\textsuperscript{th} - 12\textsuperscript{th} February 2011.
Orientation Training Programme (OTP):

To sensitize the modern physicians regarding the concepts, strength of Ayurveda in medical care; one OTP has been organized by the Dept. of Kaya Chikitsa during 21st - 26th March 2011.

OTHER PROGRAMMES:

In addition to the training programmes; few other ventures at regular interval were organized. The below are the brief details.

1. CME on RNTCP by District Tuberculosis Centre, Jamnagar on 3rd August 2010.
4. Play Based on Krisnaleela by Swadhyaya Pariwar on 1st September 2010.
5. CME by Charak Pharma on 8th Sept 2010. Guest lecture was delivered by Dr. Milind Patil, Medical Adviser, Charak Pharma, Mumbai.
6. CME by Himalaya Pharma on Skin Diseases & Dental Care on 5th Feb 2011.

E-LEARNING PROGRAMME:

The programme was launched by Smt. S. Jalaja, the then Secretary on 15th February 2010 and now available through internet globally. This Course is designed basically to sensitize and provide authentic and basic knowledge about Ayurveda for the scholars of medical fraternity. Anybody can avail this course through internet at any part of the world. Total 66 lessons covering all subject of Ayurveda have been included in the course. The lessons are written by the learned faculty members of IPGT & RA and GAM, Gujarat Ayurved University, Jamnagar. Total users of this programme are 30, out of them 23 have registered in the current reporting year.

* * * * *

NATIONAL PHARMACOVIGILANCE PROGRAMME FOR (ASU) DRUGS

Department of AYUSH vide its letter No Z.15015/09/2008-E&C-II dated 20th August 2008 recognised Institute for Post Graduate Teaching & Research in Ayurveda (IPGT&RA), Gujarat Ayurved University, Jamnagar as National Pharmacovigilance Resource Centre for Ayurveda, Siddha and Unani Drugs (NPRC - ASU) in India, under the Central sector scheme for grant-in-aid to non-profit / non government AYUSH organizations / institutions for up-gradation to Centre of Excellence during the year 2008-09.

The below are the activities carried-out during the current academic year:

Pharmacovigilance centres:

55 Pharmacovigilance centres have been established till date at different colleges across the country.

Training and Awareness activities conducted:

13 CME programmes were conducted during the year in 12 different states. Out of these 10 are conducted at Ayurvedic institutions, two are at Unani and one at Siddha institute. Total 646 trainees attended these training programmes.

At NPRC (IPGT&RA, Jamnagar) Six lectures were delivered to 170 trainees (during six RoTP and CME programmes) and four lectures were delivered at Gandhinagar to 120 trainees (in 4 CME programmes) on pharmacovigilance.

Four capacity building programmes for the coordinators of the RPC / PPC and PV centres were conducted, where 107 coordinators from 20 states, 15 CCRAS units, 4 siddha institutes and 7 Unnani institutes took active participation in these programmes.

New Web Site:

New web site namely “ayushsuraksha.com” has been registered during the year.

New RPC:

CCUM has been requested to take initiative to start Pharmacovigilance programme at their council.

Distribution of ADR forms:

ADR reporting forms were distributed to all the ASU colleges along with protocol with an intention to create awareness and promote reporting culture of possible ADRs with ASU drugs.

ADR report received: Total 114 ADRs were received during 2010-11.

* * * * *
Auditor’s Report

We have audited the attached Balance Sheet of Gujarat Ayurved University, Institute for Post Graduate Teaching & Research, (Plan & Non-Plan Expenditure) Jamnagar, as at 31st March, 2011 and also the annexed income & Expenditure Account for the year ended on that date, we report as under:

These financial statements are the responsibility of the Organization. Our responsibility is to express an opinion on these financial statements based on our audit.

We have conducted our audit in accordance with auditing standards generally accepted in India. Those standard require that we plan and perform our audit to obtain reasonable assurance about whether the financial statements are free of material misstatements(s) An audit includes examining on a test basis evidence supporting the amounts and disclosures in the financial statements An audit also includes assessing the accounting used and significant estimates made by management as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

1 We certify that the Balance Sheet and Income & Expenditure account are in agreement with the books of account maintained at Jamnagar.

2 We report observations / comments / discrepancies / inconsistencies as elaborated wide notes on accounts.

Subject to above:

(a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.

(b) In our opinion proper books of accounts have been kept so far as it appears from our examinations of the books.

(c) In our opinion and to the best of our information and according to the explanations given to us the said accounts read with the notes thereon give :
   i. in the case of Balance Sheet of the state of affairs as on 31st March, 2011 and
   ii. in the case of Income & Expenditure account of the surplus of income over expenditure for the year ended on that date.

For Doshi Maru & Associates
Chartered Accountants

Shashank P. Doshi
Partner : M.No: 108456
FRN: 0112178W
Signed at Jamnagar
GUJARAT AYURVED UNIVERSITY, JAMNAGAR  
INSTITUTE OF POST GRADUATE TEACHING AND RESEARCH  
(PLAN ACCOUNTS)  

Utilisation Certificate  
This is to certify that on the basis of our necessary check and verification and on the basis of books of accounts and other necessary records produced before us for verification, for the financial year 2010-2011, by Gujarat Ayurved University, Institute of Post Graduate Teaching & Research, (Plan Accounts), Jamnagar. We hereby certify that the closing balance as on 31st March, 2011 for the above is as under:  

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un-utilized Opening Balance as on 01.04.2010</td>
<td>Rs. 29,60,304.42</td>
</tr>
<tr>
<td>Add. Grant Received during the year 2010-11</td>
<td>Rs. 14,00,00,000.00</td>
</tr>
<tr>
<td>Add : Indirect Income</td>
<td>Rs. 22,71,489.53</td>
</tr>
<tr>
<td>Add: Change In Current Assets</td>
<td>Rs. 1,75,087.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>Rs. 14,54,06,880.95</strong></td>
</tr>
<tr>
<td>Less: Expenditure Incurred</td>
<td></td>
</tr>
<tr>
<td>Direct expenses</td>
<td>Rs. 1,20,95,668.00</td>
</tr>
<tr>
<td>Indirect expenses</td>
<td>Rs. 38,701.00</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>Rs. 12,80,61,550.00</td>
</tr>
<tr>
<td><strong>Total Expenditure</strong></td>
<td><strong>Rs. 14,01,95,919.00</strong></td>
</tr>
<tr>
<td>Closing Balance as on 31.03.2011</td>
<td>Rs. 52,10,961.95</td>
</tr>
</tbody>
</table>

For detail of above referred incomes and expenditures refer to the audit report of even datced together with Balance Sheet as at 31st March, 2011 and Income & Expenditure account for the year ended on that date.  

For Doshi Maru & Associates  
Chartered Accountants  

Shashank P. Doshi  
Partner : M.No: 108456  
FRN: 0112178W  
Signed at Jamnagar
GUJARAT AYURVED UNIVERSITY, JAMNAGAR
INSTITUTE OF POST GRADUATE TEACHING AND RESEARCH
(NON-PLAN ACCOUNTS)

Utilisation Certificate

This is to certify that on the basis of our necessary check and verification and on the basis of books of accounts and other necessary records produced before us for verification, for the financial year 2010-2011, by Gujarat Ayurved University, Institute of Post Graduate Teaching & Research, (Non-Plan Accounts), Jamnagar. We hereby certify that the closing balance as on 31st March, 2011 for the above is as under:

Non-Plan Utilisation Certificate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un-utilised Opening Balance as on 01.04.2010</td>
<td>Rs. 33,72,808.56</td>
</tr>
<tr>
<td>Add. Grant Received during the year 2010-11</td>
<td>Rs. 14,58,00,000.00</td>
</tr>
<tr>
<td>Other Income</td>
<td>Rs. 55,06,635.00</td>
</tr>
<tr>
<td>U niversity Fees Collection</td>
<td>Rs. 10,300.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>Rs. 15,46,89,743.56</strong></td>
</tr>
</tbody>
</table>

Less: Expenditure Incurred:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Direct Expenses</td>
<td>Rs. 14,09,36,652.00</td>
</tr>
<tr>
<td>2. Indirect Expenses</td>
<td>Rs. 93,33,625.00</td>
</tr>
<tr>
<td>3. Capital expenditure</td>
<td>Rs. 42,451.00</td>
</tr>
<tr>
<td>4. Deposits Paid</td>
<td>Rs. 28,650.00</td>
</tr>
<tr>
<td>5. Change in Current Assets</td>
<td>Rs. 2,75,144.00</td>
</tr>
<tr>
<td><strong>TOTAL EXPENDITURE</strong></td>
<td><strong>Rs. 15,06,16,522.00</strong></td>
</tr>
</tbody>
</table>

Closing Balance as on 31.03.2011: Rs. 40,73,221.56

For detail of above referred incomes and expenditures refer to the audit report of even dated together with Balance Sheet as at 31st March, 2011 and Income & Expenditure account for the year ended on that date.

For Doshi Maru & Associates
Chartered Accountants

Shashank P. Doshi
Partner : M.No: 108456
FRN: 0112178W
Signed at Jamnagar
GUJARAT AYURVED UNIVERSITY, JAMNAGAR
INSTITUTE OF POST GRADUATE TEACHING AND RESEARCH
(PLAN & NON-PLAN ACCOUNTS)
JAMNAGAR

SCHEDULE: 18

A  Significant Accounting Policies:

1  METHOD OF ACCOUNTING:
The Accounts are prepared under the historical cost convention using, generally, cash system of accounting except administrative expenses which are accounted on accrual basis.

2  FIXED ASSETS & DEPRECIATION:-
Fixed assets have been stated at cost.
No Depreciation has been provided on the Block of Assets as required by the AS 6 of ICAI.

B.  Notes on Accounts:

1.  The amount of imprest which they have given to their employees to meet the expenses of university had been debited as miscellaneous expenses instead of debiting them in their respective head which already exists.

2.  Bank Reconciliation has been completed till 31st March, 2011 and difference is allotted to Miscellaneous Income of Rs. 8,45,770.78/- in IPGT & RA Plan and Rs. 1,21,219.00/- in IPGT & RA Non Plan Account. These Differences is due to cheque not presented in bank for more than 6 months.

3.  As per the Accounting Standard 15 - "Employees Benefits" issued by The Institute of Chartered Accountants of India, Provision for Gratuity and Leave Encashment has to be made on actuarial valuation on the present value of future liability; the same is not complied with.

4.  During the year the IPGT & RA received the grant & utilization there of is reported as under. The income part to the extent of unutilized grant portion for the year and the assets corresponding to the bank accounts, have been over stated.

<table>
<thead>
<tr>
<th></th>
<th>Plan Account</th>
<th>Non Plan Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Income</td>
<td>140,000,000.00</td>
<td>145,800,000.00</td>
</tr>
<tr>
<td>Unutilized Portion</td>
<td>52,10,961.95</td>
<td>40,73,221.56</td>
</tr>
</tbody>
</table>

As per our audit report of even date attached herewith

For Doshi Maru & Associates
Chartered Accountants

Shashank P. Doshi
Partner : M.No: 108456
FRN: 0112178W
Signed at Jamnagar
In addition to the regular activities of teaching and providing demonstrations to the scholars; the faculty is involved in different research activities too. The researches being carried-out at the institute are broadly grouped here in different sections.

- WHO – DFC and APW Sponsored Projects
- AYUSH Sponsored Projects
- Institutional Projects
- Others

**WHO – DFC and APW PROJECTS:**

The Institute is involved in carrying-out researches in collaboration with WHO Country Office India. The below is the brief information on the on-going activities.

<table>
<thead>
<tr>
<th>Title</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>APW Projects</td>
<td></td>
</tr>
<tr>
<td>1 Developing Guidelines for Clinical Research Methodologies in Ayurveda</td>
<td>Prof. MS Baghel, Dr. Rajagopala S</td>
</tr>
<tr>
<td>2 Standardization of Ayurvedic Clinical Terminology</td>
<td>Prof. RR Dwivedi Dr. AS Bagel</td>
</tr>
</tbody>
</table>

| DFC Projects                                                        |                                               |
| 1 Capacity Building Programme on Pharmacovigilance in ASU Drugs      | Prof. MS Baghel, Dr RN Acharya                 |

**AYUSH SPONSORED PROJECTS:**

The faculty of the institute are also carrying-out researches, which are being sponsored by Dept. of AYUSH.

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept.</th>
<th>Investigators</th>
<th>Sponsoring Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Standardization and Clinical evaluation of Keshanjana : An Ayurvedic formulation in Shushkashipaka (Dry eye syndrome)</td>
<td>Shalakya Tantra</td>
<td>Prof KS Dhiman Dr PD Mataliya</td>
<td>CCRAS</td>
</tr>
<tr>
<td>2 Toxicological evaluation of coded drug - Tj – (Rasa Kalpa / Bhasma)</td>
<td>Pharmacology Unit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INSTITUTIONAL PROJECTS:**

The institutional projects are being governed by The Technical & Research Committee, IPGT & RA, which is constituted by the then Vice Chancellor of Gujarat Ayurved University, Jamnagar in 2005 and later the charges were handed over to the Director, IPGT & RA. The committee is headed by the Director, IPGT & RA and comprises of members from various departments of the institute. Dr. S Rajagopala, Asst. Professor, Dept. of Kaumarabhritya is coordinator and looking after the activities of the committee.
Aims & Objectives:

1. To offer advice and counseling on all technical and research related issues in the University.
2. To evaluate R & D proposals sponsored by outside agencies.
3. To appoint project investigators for the approved sponsored projects.
4. To evaluate applications received for recognizing applicant organizations as GAU recognized R & D Centers.
5. To evaluate and assist in conducting of research projects from outside agencies (sponsored research projects).
6. To evaluate and assist in conduction of institutional research projects submitted by faculty.

Projects at Present:

There are two types of projects under TRC, viz.

1. **Sponsored Projects:** These are projects sponsored by outside agencies such as pharmaceutical companies etc. There are 3 sponsored projects being carried-out during the current reporting year. They are:

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept.</th>
<th>Investigators</th>
<th>Sponsoring Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Evaluation of capsule BP Norm in management of Hypertension</td>
<td>Kaya Chikitsa</td>
<td>Prof. HM Chandola, Dr. Mandip Kaur</td>
<td>Suryavinayak Ind. Ltd, New Delhi</td>
</tr>
<tr>
<td>2. A Study to evaluate the comparative efficacy &amp; safety of Syrup Spasma, Mentelukast and low dose corticosteroid inhaler in children with mild to moderate persistent bronchial asthma.</td>
<td>Kaumara Bhritya</td>
<td>Dr. KS Patel, Dr. VK Kori, Dr. Rajagopala S</td>
<td>Charak Pharma, Mumbai</td>
</tr>
<tr>
<td>3. Efficacy and tolerability of Arshonyt tablets and ointment in treatment of ano-rectal disorders</td>
<td>Shalya Tantra</td>
<td>Dr. SK Gupta, Dr. TS Dudhmal</td>
<td>Charak Pharma, Mumbai</td>
</tr>
</tbody>
</table>

2. **Internal Projects:** These are the project internal works sanctioned by the institute and being carried out by the faculty members of the institute. A special grant provision has been made in the annual budget of the institute for the smooth running of the projects.

During the reporting year, five projects are being carried-out, brief details of which are as follows:

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept. / Laboratory</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-clinical and Clinical studies on Naga Bhasma w.s.r. to Diabetes mellitus</td>
<td>Rasa Shastra &amp; Bhaishaja Kalpana</td>
<td>Dr. BJ Patgiri</td>
</tr>
<tr>
<td>2. Experimental evaluation of anti- cataract effect of Vasanjana : An indigenous preparation</td>
<td>Shalakya Tantra</td>
<td>Dr. Manjusha R</td>
</tr>
<tr>
<td>3. A clinical study on Ardhavabhedaka (Migraine) and its management with Laghut Sutashekha Rasa and Brihat Dashamoola Taila Nasya</td>
<td>Shalakya Tantra</td>
<td>Dr. DB Vaghela</td>
</tr>
</tbody>
</table>
### 4 Pharmacognostical evaluation of certain Anukta Dravya (extra pharmacopeial medicinal plants)

Dravya Guna Dr. RN Acharya

### 5 Validation of HPTLC methods for the Identification of Botanicals in GMP environment

Pharmaceutical Chemistry Laboratory Dr. VJ Shukla

Three new projects have been submitted during the current year on **systematic review** of different pathological conditions; which have been approved by the Scientific Advisory Committee of IPGT & RA. The work is yet to be started. Brief details are as follows:

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept. / Laboratory</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Systematic Review of Researches on Vranaropana (Tissue Healing) Properties of Ayurvedic Drugs</td>
<td>Shalya Tantra</td>
<td>Dr. SK Gupta, Dr. TS Dudhamal, Dr. VD Mahanta</td>
</tr>
<tr>
<td>2 Systematic Review of Researches on Female Infertility (Vandhyatwa)</td>
<td>Stree Roga &amp; Prasooti Tantra</td>
<td>Dr. LP Dei, Dr. SB Donga, Dr. K Dhiman</td>
</tr>
<tr>
<td>3 Systematic Review of Researches on Tamaka Swasa (Bronchial Asthma)</td>
<td>Rasa Shastra &amp; Bhaishajya Kalpana</td>
<td>Dr. Galib, Prof. PK Prajapati, Dr. BJ Patgiri, Dr. Prashant B</td>
</tr>
</tbody>
</table>

**Research Projects under consideration:**

A number of applications have been received by sponsoring agencies for pre-clinical and clinical studies. Few of them have been accepted formally and screening of the proposals is under progress. Brief details are as follows:

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept. / Laboratory</th>
<th>Investigators</th>
<th>Sponsoring Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To Evaluate the Clinical efficacy of “Nirdosha Herbal Filter Dhumpana”</td>
<td>Kaya Chikitsa</td>
<td>Dr. AR Dave, Dr. Mandip Kaur</td>
<td>Maans Product, India</td>
</tr>
<tr>
<td>2 Clinical Trial on Zandu Zenstone Syrup</td>
<td>Kaya Chikitsa</td>
<td>Dr. Mandip Kaur, Dr. AR Dave</td>
<td>EMAMI, India</td>
</tr>
<tr>
<td>3 Clinical trial on Zandu Ovutoline Ds Tablet</td>
<td>Stree Roga &amp; Prasooti Tantra</td>
<td>Dr. LP Dei, Dr. SB Donga, Dr. K Dhiman</td>
<td>EMAMI, India</td>
</tr>
<tr>
<td>4 Evaluation of the efficacy of Blossom Syrup in the treatment of Iron Deficiency Anemia (IDA) in children</td>
<td>Kaumara Bhritiya</td>
<td>Dr. KS Patel, Dr. Rajagopala S</td>
<td>UAP Pharma, Ahmedabad</td>
</tr>
</tbody>
</table>
OTHERS:

The other below projects have been submitted for further consideration to the sponsoring agents.

<table>
<thead>
<tr>
<th>Title</th>
<th>Responsible Dept.</th>
<th>Investigators</th>
<th>Sponsoring Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Developing e-contents in Kaumarabhritya - Part B</td>
<td>Kaumara Bhritya</td>
<td>Dr KS Patel</td>
<td>NMEICT, Ministry of Human Resource Development, New Delhi</td>
</tr>
<tr>
<td>2 Developing suitable material for Ayurveda Scholars of various categories through e-learning (BhaishajyaKalpana - Part I : Ayurvedic pharmaceutics) Control No: DE- 16031111920</td>
<td>Rasa Shastra &amp; Bhaishajya Kalpana</td>
<td>Dr Galib</td>
<td></td>
</tr>
</tbody>
</table>

Another project entitled "Evaluation of the effect of Punarnavadi Mandura and Pandughni Vati on Pandu (Anaemia)" under the RCH Programme of Govt. of India.
During the current reporting year; the faculty and scholars of the institute have involved in publishing their respective researches in different formats including Project Reports, Contributing Chapters, Providing Editorials, Research articles etc. A brief is placed herewith:

**Project Reports:**


**Chapters in a Book:**


**Editorials:**


**Booklet:**

1. Booklet on "*Ayurveda dwara mata ane balakni sambhal*" (Mother and Childcare through Ayurveda) in Gujarati language has been published by the Dept. of Kaumarabhritya. Dr. Kalpana S Patel, Dr. Virendra Kori and Dr. S Rajagopala compiled and edited the work.

**Media article:**

1. One media article in Gujarati language has been published in 'Nobat' [daily evening paper of Jamnagar on 15.01.2011] on Cerebral Palsy, Tuberculosis and Obesity in Children.
Published articles in Peer Reviewed Journals with ISSN Number:


7. Yadav Shyamlal Singh, Galib, Prajapati PK, Ravishankar B, Ashok BK; “Evaluation of Anti‐tussive activity of Shirishavaleha - An Ayurvedic Herbal Compound Formulation in Sulphur Dioxide induced Cough in mice” Indian Drugs; 47 (9), Sept. 2010, pg. 38-41 [ISSN No. 0019-462X]


9. Mruthyumjaya Meda Rao, Ajay Kumar Meena, Galib; “Detection of toxic heavy metals and pesticide residue in herbal plants which are commonly used in the herbal formulations” Environmental Monitoring and Assessment (Earth & Environmental Science) 10.1007/s10661-010-1828-2 [published online on 06 January 2011] [ISSN No. 1573-2959]


12. Kundan Chaudhari, Samarakoon SMS, Chandola HM, Rajesh Kumar, Ravishankar B; “Efficacy of Amalakyadi Ghrita along with Vachadi Ghrita Nasya (Pratimarthra) on Senile Dementia - A Clinical Evaluation” Arya Vaidyan, 24(2), pg. 81-9 [ISSN No. 0970-4086]


14. Parekh H, Manjusha R; “A clinical study on the role of Dashamula taila nasya & Laghu Sutashekhara Rasa in the management of Ardhavabhedaka w.s.r to Migraine” AYU, 30(1), Jan - March 2009, pg. 29-33 [ISSN No. 0974-8520]


20. Dhiman KS; “A comprehensive review of the Cataract (Kaphaja Lingnasha) and its Surgical Treatment in Ayurvedic literature” AYU, 31(1), Jan - March 2010, pg. [ISSN No. 0974-8520]

21. Dwivedi RR, Vyas MK, Rohit D; “Concept of Ahara In Relation To Matra, Desa, Kala and Their Effect On Health” AYU, 31(1), Jan - March 2010, pg. [ISSN No. 0974-8520]

22. Kamini Dhiman, Abhimanyu Kumar, Dhiman KS; “Shad Garbhaka Bhavas vis-vis congenital and genetic disorders” AYU, 31(2), April - June 2010, pg. 175-84 [ISSN No. 0974-8520]


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