<u>SAMHITA AHYAYAN -2</u> (Non-Lecture Practical Journal - Hand book for teachers)

Practical No 1,12,19 Shloka Pathana (Total 30 LH)

- Teacher shall write /display the shloka from shloka sangraha part of each Adhyaya on the board.
- Recitation of those shloka by the teacher so that pronunciation and splitting of words will be clear to the students.
- Students are then asked to recite the same shloka in multiple batches such as: Bench wise recitation, two rows together, left, right, middle rows, whole class
- After that students are asked to recite Shloka individually. A log book can be kept for tracking the individual performance.
- > Total NLH hours are 30, divided into 10 each in each term.
- While the hours are distributed topic wise (Table.2), 10 hrs each are shown in the last topic of the terms (Vividhasitapeeteeya adhyaya, Jatisutreeya adhyaya, and Gomayachurneeya adhyaya respectively) which in practice can be distributed where ever necessary.
- > Total 286 sutras are selected for Shlokapathana (see the list in Table 4A)
- Minimum50 Shloka should be written in the practical journal.

Practical 2, 13, 20

Learning through Vyakhyana (total 9 hours, distributed 3 hrs each in three terms)

- Eight chapters are selected for Vyakhyana (See the list in Table 4A)
- After completion of the respective chapters, 1 Hour will be designated for teaching and explaining Vyakhyana – (Total - 9 NLH)
- Vyakhyana from original text (Chakrapani commentary) should be made available to students in these hours (either as print out or projection, if students do not possess the original text)
- > Teachers shall justify and explain the importance of Vyakhyana.
- > Students shall report these findings in the prescribed proforma in practical journal.

Practical 3

Observing the practical utility of Snehana and Swedana

Task 1 - Enlist Sneha-yogas available in the hospital pharmacy

- Students are sent to the hospital pharmacy.
- > Let them identify some Sneha Yogas there.
- Guide them to include varieties of snehayogas (tailas of different plants, yamaka, trivrit, mahasneha etc.) which ever are available
- > Common indications can be enlisted after discussion with Internees, PG's or teachers.
- The details of which should be filled in the respective table provided in Practical journal.
- Work can be completed during the NLH hours allotted (2 hrs)
- > Minimum ten yogas should be included in the table.

Task 2 - Observe and enlist Swedana procedures undertaken by patients in hospital ward

- > Students shall be divided in groups.
- Teachers should first identify relevant cases posted for Snehana and Swedana from OPD or IPD.
- > After studying the respective Case Sheet, allot the patients to each group.
- Students can go through the case sheets and discuss with internees/PG's/Teachers to identify the indications.

- > Identify the sweda procedure, materials used, duration etc.
- Later they can interact with patients to analyze and observe the effects of sweda procedure, their impressions, discomforts if any etc.
- Collection of data can be completed during the NLH alloted
- Minimum five cases need to be reported

Practical 4

Identification of Bahudosha lakshana in patients

- Bahudosha lakshana is explained in Chikitsaprabhriteeya adhyaya. It is generally assessed to see whether the patient needs shodhana or not.
- Questionnaire regarding Bahudosha Lakshana had already been developed and validated¹
- > Teachers can demonstrate the questionnaire in one or two cases/subjects
- Identify relevant cases from OPD/IPD, preferably those who are advised for shodhana, after studying respective case sheets.
- Students can go through the case sheets and discuss with teachers to get clarity regarding questions.
- > Later they can interact with patients and furnish the performa.
- Interpretation can be made on the basis of score (alpadosha 20 40, madhyamadosha 41 60, bahudosha 61 -80)
- > Discussions can be made to see whether the result justifies the plan of treatment.
- NLH allotted (2 hrs) can be utilized for demonstration and discussion. Case taking can be completed during routine clinical posting.
- Minimum 3 case sheets should be furnished in the Practical journal

Practical 5: Assessment of diseases based on Trividha-bodhya-sangraha (Minimum three cases)

Ch. Su. 18/45

- Trividha-bodhya-sangraha is mentioned in the context of identification of unnamed diseases (Anukta Vyadhi) following " विकारनामाकुशलो न जिह्रीयात् कदाचन.....
- It is explained that even though diseases are not named properly, they can be comprehended through their Vikara-prakruti (nature of disease as well as its pathogenesis, Adhishtana (location) and Samuthana- vishesha (etiological factors).
- In a way this is the simplest way in understanding the disease in relation to its treatment, even though proper naming is not possible. It is the thorough knowledge of etiological factors rather than the names of diseases which counts for the purpose of treatment. Students should be familiar with this method through this practical.
- > In the performa, each of these factors are further subdivided into:
 - Vikara prakruti Poorvarupa, Rupa, Samprapti, Upasaya/Anupasaya:
 - Adhishtana Roga-adhisthana (site of disease), Roga-marga, Dosha involved, Dhatu/upadhatu/mala involved, Srotas involved and type of srotodushti
 Samuthana - Ahara Vihara Agantu Manasa
 - o Samuthana Ahara, Vihara, Agantu, Manasa
- As part of interpreting the data students can conduct discussions with physicians concerned on how much the above findings conform with treatment given / planned. (E.g. Whether samuthana has been considered in the context of advising Nidana Parivarjanam)
- NLH hours allotted (2 hrs) can be utilized for demonstration and discussion. Case taking and performa filling can be completed as part of routine clinical hours.
- Minimum 3 case sheets should be recorded like this in the Practical journal.

Practical 6: Identification of Ashta dosha in Sthoulya

- > Purpose of this Practical is to identify Ashta dosha in Sthoulya.
- Inclusion criteria of subjects Age group above 25yrs & BMI Above 25
- The questionnaire is prepared based on the symptoms described in Ashtauninditeeyam. Ch. Su. 21/4.
- Age is fixed above 25 considering dhatusthiratwa attained in that age and difficulty in assessing Krucchra-vyavayata among people below this age.
- ▶ A specific question is given in the performa for assessing each symptom.
- The subjective response will be rated from 1 to 10 and the score will be given as a whole number which they find suitable.
- Interpretation will be based on the total score attained, Lesser the score (below 36) more chance of presence of sthaulya
- Discussion will be on how much the BMI based obesity conforms with symptoms mentioned in Carakasamhita
- NLH hours allotted (2 hrs) can be utilized for demonstration of the questionnaire, and later discussions on the observations and results.
- Minimum 5 case sheets should be furnished in the Practical journal.

Practical 7: Clinical observations on nija-agantuja relationship

- Concept of Nija and Agantu diseases are discussed in Ashtodareeya (Ch Su 19) and Maharoga adhyaya (Ch Su 20).
- Exogenous diseases may occur as secondary development after endogenous and similarly endogenous diseases may further progress as exogenous diseases. One should carefully analyse primary causes and secondary complications before starting treatment (Ch Su 19/7).
- From case sheets and by interacting with internees and physicians etc. students can identify some cases from OP or IP which started as Agantu (injury, microbial infection etc.) which later developed other diseases / complications (It can occur vice versa also).
- ▶ Nija-agantu relationship can be justified by citing the evidences from case history.
- Hours allotted (2 hrs) can be engaged to bring out discussions in the class and demonstrate one or two cases either as video lessons or bed side class.
- Case taking can be completed by students during routine clinical postings.
- If cases are not available, teacher can narrate some case reports and instruct students to establish Nija-Agatu relationship (Case Based Learning)
- Minimum 3 case sheets should be furnished in the Practical journal.

Practical 8: Clinical observation on shadupakrama

- Shadupakrama is the principal categorization of treatment in Ayurveda explained in Langhanabrimhaneeya adhyaya (Ch Su 22). This Practical lets student to be familiar with application of shadupakrama in routine therapeutic interventions.
- Among shadupakrama, snehana and swedana are frequently available in hospital wards. Langhana (dasavidhalanghana) in the form of shamana and shodhana also will be available. Rukshana is commonly administered usually before starting snehapana. Rukshasweda Brimhana usually comes during the final stage of the treatment, or at the time of follow up.
- Students can identify these upakramas in different cases and observe their effects in patients. The exercise can be completed by going through case sheets, discussing with doctors and interacting with patients.
- Upakrama (one or more) can be selected as it applies to the case and the details of upakrama (medicines, materials, procedures, duration etc.) can be stated in the proforma.
- > NLH allotted (2 hrs) can be engaged to bring out discussions in the class and to

demonstrate identification of shadupakrama in patients in IP.

- Case taking and furnishing the proforma can be performed during routine clinical postings.
- Minimum 3 case sheets should be furnished in the Practical journal.

Practical 9: Assessment of raktadushti karana in specific clinical conditions

- Among different types of dhatudushtis, Rakta-dushti has a distinct practical application considering its bigger implications in clinical scenario. That is why Caraka dedicate a full chapter for dealing with different aspects of rakta.
- Vidhisoniteeya chapter (Ch Su 24) explains characteristics of pure blood, the causative factors for vitiation of blood, <u>dosha</u> specific features of vitiated blood, their treatment and procedure of bloodletting etc.
- Raktadushti karanas are separately enlisted in the chapter, which are mostly related to the unhealthy food and lifestyle regimen prevalent today in the society.
- > The questionnaire provided is not validated, hence can be customised by teachers.
- > Probable raktadushti karanas can be identified using the proforma.
- Cases can be selected preferably from skin diseases or any other disease from the list of raktapradoshaja vyadhi
- NLH allotted (2 hrs) can be can be engaged to bring out discussions in the class and to demonstrate identification of shadupakrama in patients in IP.
- Minimum 3 case sheets should be furnished in the Practical journal.

Practical 10: Observations on use of agrya aushadha in clinical practice

- > Yajja purusheeya enlists agryas related to ahara, aushadha and vihara
- Agrya aushadha (Eg: Rasna vataharanam) are commonly used for treating diseases in General practice.
- This Practical creates an opportunity to familiarize the use of such drugs in common clinical practice
- Teacher can divide the whole class into sub groups and allot drugs taken from agrya list to each group.
- Let the students interact with practicing Physicians (in the campus or outside) and collect information as suggested in the proforma.
- NLH can be utilized to conduct interview with the Physician, for minimum three drugs.

Practical 11: Assessment of dhatu-upadhatu-mala-pradoshajavikaras in patients

- Dhatu-upadhatu-mala pradoshaja vikaras are enlisted in Charakasamhita Vividhasitapeeteeya adhyaya.
- Students can identify some symptoms in patients which indicate such pradosha
- Teachers can allot patients to students after grouping them in five or six groups after discussion with Physicians or teachers
- NLH hours (3 hrs) can be allotted for demonstration by teacher and case documentation by students

Practical.14: Case taking in relation to nidanapanchaka

> NLH hours (12) can be utilized for furnishing case proforma.

Practical.15: Differential diagnosis of skin diseases with guidelines on kushta

- Kushta-nidana explains differential diagnosis of kushta according to varna, akriti, srava, sparsa etc.
- Minimum three cases can be identified and reported
- > NLH (2 hrs) can be utilized for demonstrating some cases in the class
- > Case taking can be completed during routine clinical posting.

Practical.16: Pramana pariksha

- Purpose is to familiarize with the methods of physiometry (anthropometry) as per as per Ayurvedic methods
- Different measurements suggested in Ayurprakriti web portal of CCRAS can be taken as standard tool.
- Articles suggested: Muley SK, Surve AA, Bhingare SD. Scientific study of Charakokta Anguli Pramana in reference to human height. Ayu. 2013 Oct;34(4):356-60. doi: 10.4103/0974-8520.127709. PMID: 24696571; PMCID: PMC3968696.
- https://www.researchgate.net/publication/292178573_PRAMANA_SHARIRA_EXPL ORING_NEWER_HEIGHTS_IN_VYAVAHARA_AYURVEDA

Practical.17: Identification of vikaravighata bhavaabhava in patients

- This Practical has two parts: (1) Group discussions for preparing check list (2) Furnishing details of patients using the checklist.
- > Concept of Vikaravighata bhava abhava is explained in Prameha nidana
- Vikara-vighata-bhava can be taken as protective factors and vikara-vighata-abhava is taken as risk factors of a particular disease
- Divide class into four or five groups and assign most commonly seen diseases to each group (Eg. Prameha); Conduct group discussions to identify risk factors / protective factors of respective diseases through literature review, interaction with peers and teachers; Sum up findings of group discussions and prepare check list for each disease
- Select three cases of the proposed disease and verify the cases using the check list.
- NLH (2 hrs) can be utilized for conducting group discussion, preparing checklist and demonstrate the checklist in patients.
- > Furnishing the proforma can be conducted during routine clinical posting.

Practical.18: Exploration of lokapurusha samya vada in the back ground of one health

- Loka-purusha samya is a fundamental understanding in Ayurveda which explains man-nature interaction.
- > One health movement bases on the concept of man-nature interaction.
- > This can be taken as the back ground of discussions in the class room
- Let students prepare about the principles of loka-purusha-samya and one health and have thorough discussions on the similarity of the two approaches.
- > Let them summarize the observations in the prescribed format.

Practical.21: Learning through sambhasha parishad

- Sambhasha parishad is the method of debate mentioned in Caraka-samhita
- Methods of discussion (Vadamarga) is explained in C.Vi 8 (Rogabhishag jiteeya)
- Discussions can be conducted abiding such methods
- Basic minimum criteria can be panchavayava-vakya (pratijna, hetu, udaharana, upanaya and nigamana)
- > Any relevant topic can be selected
- Suggested topics:
- Suggested topics: 1. Relevance of Daivavyapasraya cikitsa 2. Rakta as fourth dosha 3. Relevance of food classification 4. Specific agrya related to vihara (Eg: vishado rogavardhananam) 5. Importance of naming of disease 6. Relevance of viruddha ahara

Activiry.22: Srotas proforma

- Sroto-pareeksha is a part of virkriti pareeksha.
- Instead of individual examination of each srotas, here srotodushti karana and type of srotodushti is given importance.
- > Minimum three cases can be furnished with the help of proforma.
- > NLH (2 hrs) can be utilized for demonstrating some cases.
- > Proforma filling can be completed during routine case taking.

Practical.23: Learning through tantra yukti

- > Purpose is to sensitize about importance of application of tantrayukti
- > Teachers can illustrate the use of tanrayukti in selected sutras (list given in table.4a)
- Students would be able to appreciate the importance of tantraykti by understanding the new meaning of sutra after applying tantrayukti.
- ▶ 15 sutras can be documented in the proforma given.
- > The whole practices can be completed in class room utilizing NLH (5 hrs.)

Practical.24: Assessment of health through dhatusamya pareeksha

- > Purpose is to assess health status of a person based on dhatusamya pareeksha.
- Dhatusamya pareeksha is explained in Ch Vi 8/89
- ➢ Assessment of 10 individuals can be completed in 2 hrs allotted (NLH)

Practical.25: Agni assessment based on tolerance to apachara

- Usually agni assessment is done based on digestive capacity and appetite
- Here, as per Ch.Vi 6/12, different types of agni are identified through assessing person's tolerance towards different types of apachara (faulty practices during food intake)
- Proforma is given
- Observations can be compared to results from other commonly used tools (Eg: Singh, Aparna & Singh, Girish & Patwardhan, Kishor & Gehlot, Sangeeta. (2016). Development, Validation, and Verification of a Self-Assessment Tool to Estimate Agnibala (Digestive Strength). Journal of Evidence-Based Complementary and Alternative Medicine. 22. 10.1177/2156587216656117.)
- > NLH (2hrs) can be utilized for furnishing proforma for 10 persons

Practical.26: Trividha rogavisheshavijnana in diagnosis

- Purpose is to justify the role of trividharogaviseshavijnana (pratyaksha, anumana and aptopadesa) in clinical methods. (Ref: Ch Vi 4)
- > Teachers can demonstrate and discuss the Practical with the help of proforma.
- > NLH (3 hrs) can be used to document the observations related to three cases

Practical.27: Assessment of upasaya and Anupasaya in patients

- Unique practice
- Purpose is to justify importance of upasaya and anupasaya clinical examination (Ref:Ch Ni 1 with Chakrapani commentary)
- Prorma can be demonstrated during NLH
- > Case taking can be completed through routine clinical posting
- > Identify upasaya and anupasaya in minimum three cases