

## **Kriya Kala Based Treatment Model of Ayurvedic Management of Acute Influenza Like Illnesses And Severe Acute Respiratory Illnesses Including Covid-19 (*Vata Shalaishemika Jwara*)**

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**Background:** Febrile illnesses since the time immemorial remained a cause for concern in the human population owing to their unfavourable health and economic consequences both at individual and community levels. India being a tropical country, febrile illnesses are one of the commonest causes for seeking medical treatment. Usually undifferentiated acute febrile illness is a common presentation in primary health care settings including AYUSH facilities which are located in remote and rural areas. These undifferentiated febrile illnesses have a broad spectrum of etiological factors and myriad of clinical presentations. Such illnesses are presumably and most commonly attributed to one or the other infection to start the empirical therapy. Most of the acute febrile illnesses are presumed to be self-limiting with short duration. This undifferentiated febrile illness is marked by a rise in body temperature above 101F or over 38.3 degree Celsius for three weeks or longer without a localizable cause despite one week of inpatient evaluation. In modern medicine, apparently there are more than two hundred clinical entities which are included in the differential diagnosis of the fever and in most of the adult cases which can be reduced to several dozens of them.<sup>i</sup> There are no defining guidelines for fever of Unknown origin and no standard approach for the diagnosis of the complex clinical condition called Acute undifferentiated febrile illness and the arbitrarily defined three weeks allowed most acute self limited illnesses to resolve as well as sufficient time to complete the initial investigation in hospital at in-patient level<sup>ii</sup>. *Jwara*, a febrile syndrome is one such clinical condition described in all the treatises of *Ayurveda*. It is the most elaborated clinical entity with a multitude of etiological factors, complex presentations and numerous complications including death. Ayurveda focus on the radical treatment of *Jwara* (Acute and chronic febrile illnesses). It addresses the multiple factors involved in its pathogenesis rather than focussing only on the infectious pathogens. India

being a geographically diverse but low resource country with poor surveillance of infectious diseases, lack of standard syndrome based guidelines for fever management and lack of good quality testing facilities, these febrile illnesses are usually poorly managed with empirical steroids, anti- microbials, Non-steroid inflammatory drugs and analgesics which are otherwise not recommended without the proper diagnostic testing leading to emergence of antimicrobial resistance and emergence of novel infectious illnesses.<sup>iii</sup> With every viral illness epidemic and pandemic millions and billions of dollars are spent to develop anti-viral agents and vaccines for these illnesses but with the emergence of new strains of the infectious agents, these pharmacological remedies become redundant.

As many of the viral illnesses follow a seasonal cyclicity and variation in transmission patterns of infectious diseases which is known as seasonal forcing. It is sum total environmental biotic and abiotic factors which alter the pathogen, transmission, and the host immune response making him susceptible towards infection in a particular seasons and causing an outbreak<sup>iv</sup>, which is very well elaborated in *Janpadodhwansa Adhyaya* of *Charaka Samhita*. There is no dearth of plant extracts and phytochemical which have considerable anti-viral and immune system strengthening properties which may help the body fight against diseases of such nature.<sup>v</sup>

### Why Ayurveda?

*Ayurveda* literature is a treasure of thousands of herbal, herbo-mineral and metallurgical preparations which can cater various pathogenetic pathways of *Jwara* in accordance to its clinical presentation like Syndrome based management of febrile illnesses in conventional medical system. In addition to pharmacological approach, *Ayurveda* also employ a number of non-pharmacological methods like diet and lifestyle modifications, psychotherapy and counselling to radically allay the febrile illness. In the present scenario when viral illnesses are adding the burden of febrile illnesses in India in addition to malarial and other bacterial as well as parasitic fevers, India must look into its rich traditional medical wisdom for effective management of this public health threat by integrating the conventional health system to the prevalent traditional systems of medicine. *Ayurveda*, by its holistic health principles not only help in the primordial and primary prevention of these seasonal viral illnesses but also help in the management of the syndrome of the febrile illnesses caused thereby. *Ayurveda* views treatment of *Jwara* as a continuum of care from the development of a prodrome (*Purvroopa*)

to afebrile state (*Jwara mukti*) to post febrile debility (*Jwara janya dourbalya/ Dhaatu Paaka*), unlike conventional modern care which is only focussed on bringing the body temperature at normal levels. *Ayurveda* has a comprehensive treatment plan to contain the further progression of one state of fever to the severe form or *Syndrome*. The same principles of *Jwara* treatment from *Bruhatrayee* especially *Vata, Vata Kapha, Vata Kaphaj jwara, Vata and Kaph Pradhana sannipata jwara* can be applied in the influenza like illnesses and Severe acute respiratory illnesses. This continuum of care approach in *Jwara* can be used to make a person healthy and it not only includes therapeutic regimens but also diet, life style modifications and psychological measures to optimize the treatment and restore health at minimal cost. With its epistemological approach to disorders on the basis of the clinical presentation, *Ayurveda* can also design the drug regimen to manage the co-morbidities of the patient presenting with Acute Influenza like illness and Severe Acute Respiratory Illness in one go, thereby reducing the chance of side effects and other complications of poly pharmacy. The treatment protocol can be individualized, personalized or grouped as per the patient needs and desired outcome. This modular approach is a strength of *Ayurveda*.

### **Public Health Intervention- AYUSH**

This management protocol can be used as a blueprint of the public health interventions especially by AYUSH sectors to prevent, contain and treat the seasonal influenza like viral illnesses (including Covid-19) which are rampant in India, in different seasons. The sole aim of this management protocol is to emphasize and integrate the principles of public health management including awareness and mass education about viral illnesses and their transmission patterns, integrating AYUSH into the public health emergency preparedness and response<sup>vi</sup> with its own uniqueness and capacity to decrease the host susceptibility through its unique preventive and therapeutic approaches and scientific data collection methods. This integration is vital to deal with not only prevalent pandemic but other illnesses of similar threat. The protocol is designed with an aim to define the role of AYUSH personnel at every level right from Health and Wellness centre to Tertiary care AYUSH hospital. This protocol also include the proper documentation at every step to trace the natural history of the disease in every case. This protocol also defines outcomes at each point, wherein strengths of *Ayurvedic* approach can be demonstrated to be evidence based and presentable in front of

scientific community. This protocol does not emphasize one drug or multi drug medical regimen for the disease management but elucidate the sequencing of initiation of measures termed as “*Kriyakala*’ *i.e* .time to intervene by the AMO, to prevent the progression of disease to milder to severer forms. This protocol emphasises *Chikitsa Sutra*, epistemological basis of the treatment rather than on drugs which can be worked out by Ayurveda Medical officers as per their existing medicinal inventories, supply of the drugs and local availability of the drug which only beautifies the versatility of the system rather than depending on a fixed drug protocol. This also gives a wonderful opportunity to diversify the evidence of effectiveness and safety profile of Ayurveda therapeutics in combating viral illnesses.

Below is the representation of Response and Preparedness of Ayurveda Health System before and during the outbreak of any Influenza like Illness or Severe Acute Respiratory Illness and Illnesses of same nature caused by viral or bacterial agent, as *Jwara* is the manifestation of host tissue response towards a pathogenic microbe.



Timing	Interventions
<p data-bbox="177 360 435 405">क्रियाकाल 1</p> <p data-bbox="177 483 435 880">As most of the Influenza like Illnesses and Severe acute respiratory illnesses has a seasonal activation. 15 Days before the onset of Flu season.</p> <p data-bbox="177 1032 435 1211">Community contact with the AYUSH Personnel and Facility</p> <p data-bbox="177 1323 435 1391">Pre Covid -19 Testing Stage</p>	<p data-bbox="435 405 1412 506"><b>Rationale: Community orientation of the seasonal prevalence of the diseases and the effective measure to prevent the illnesses and health promotion.</b></p> <p data-bbox="435 551 1412 618"><b>Objectives: Proactive Planning-Preparatory Phase for any Outbreak.</b></p> <p data-bbox="435 663 1412 730"><b>To increase the awareness among masses about seasonal incidence of the diseases and methods of prevention i.e. Dietary and Lifestyle.</b></p> <ol data-bbox="499 730 1412 880" style="list-style-type: none"> <li data-bbox="499 730 1412 797"><b>1. To increase the health surveillance and routine follow-up of those who are susceptible for Influenza like illnesses.</b></li> <li data-bbox="499 797 1412 880"><b>2. To collaborate with the other departments for preparing a health awareness plan.</b></li> </ol> <p data-bbox="435 909 1412 954"><b><u>Preventive and Promotive Community and Individual Action Plan</u></b></p> <p data-bbox="547 987 895 1021"><b><u>Community Action Plan:</u></b></p> <ol data-bbox="499 1021 1412 1491" style="list-style-type: none"> <li data-bbox="499 1021 1412 1133">1. Common <b>Ritu Code</b> to be activated at each AYUSH Health Facility according to six <i>Ritu/</i> Seasons for advisory of life style and diet.</li> <li data-bbox="499 1133 1412 1279">2. Health Communication among masses through Public health outreach and IEC methods about prevalence of disorders common in a particular season especially Influenza like Illnesses in a particular season.</li> <li data-bbox="499 1279 1412 1391">3. Collaboration with other departments like Communication, Health and Family Welfare, Food and Supplies, Education Department, Mass media etc.</li> <li data-bbox="499 1391 1412 1491">4. Surveillance of the Community. Weekly notification of patients with Influenza like illness to an integrated disease surveillance network maintained at a central location.</li> </ol> <p data-bbox="547 1536 871 1570"><b><u>Individual Action Plan:</u></b></p> <ol data-bbox="499 1570 1412 2009" style="list-style-type: none"> <li data-bbox="499 1570 1412 1648">1. Seasonal <i>RituCharya Palan</i>, at present <i>Vasant Ritu Charya Palan</i>.</li> <li data-bbox="499 1648 1412 1760">2. Daily Activity or Season Modified <i>Dincharya Plan</i> to be made by the AYUSH Medical Officer present onsite as per Desha, Local seasonal factors and Individual <i>Prakruti</i> Based Factors.</li> <li data-bbox="499 1760 1412 1939">3. <i>Kapha Hara</i> and <i>Agni vardhan Sadharana Chikitsa</i> in the form of <i>Pathya and Apathya</i> as per requirement of the patient and maintaining an inventory of medicines like <i>Shadang Paaneeya, Gojihwadi Kwath or Joshanda, Nagarambu, Dhanya- Nagar Phanta etc.</i></li> <li data-bbox="499 1939 1412 2009">4. Use of certain herbs in diet and daily routine which have <i>Kapha vayu hara</i> properties like <i>Guduchi, Haridra, Shunthui,</i></li> </ol>

	<p><i>Panchkola, Maricha, Lashuna.</i></p> <ol style="list-style-type: none"> <li>5. Planning of <i>Shodhana Karma</i> where facilities are available, refer to higher centre especially where indicated for further assessment and care.</li> <li>6. <i>Yoga and Pranayama.</i></li> <li>7. Follow-up and quarantine of the patients if necessary.</li> <li>8. Documentation of the plan given with respect to its outcome before and after the plan implementation.</li> </ol>
<p>क्रियाकाल 2</p> <p><b>AYUSH personnel contact with Healthy Individuals reporting with <i>Kapha and Vata Vyadhi, History of Apchara and Asatmya sevana.</i></b></p> <p><b>Screening High Risk individuals like senior citizens with Allergic, Cardio-respiratory disorders, Smokers, Cold humid environment exposure, with lower <i>agni</i> and lower <i>ojasa</i>. Prone to allergic symptoms, repeated episodes of cold and cough, School Children, Health workers, People who work with animals.</b></p>	<p><b>Rationale:</b> This is crucial stage from two points of view, our main aim at this stage is:</p> <ol style="list-style-type: none"> <li>1. To strengthen the disease resistance/ infection resistance of the body so that host-parasite interaction becomes less destructive for the host and decreases the virulence of the parasite/virus especially in those who are more susceptible.</li> <li>2. To put a barrier on the close physical interaction between healthy and sick, susceptible and sick patients.</li> </ol> <p><b>Objectives: Pro active Planning</b></p> <ol style="list-style-type: none"> <li>1. To neutralize the factors promoting the emergence of the illness in individuals who have factors promoting illness.</li> <li>2. Application of “<i>Swabhavop parama vada siddhanta</i>” to break the pathogenic progression.</li> <li>3. To optimize the Individual host response. Maintaining an equilibrium stage of <i>Dosha</i>.</li> </ol> <p><b><u>Community Action Plan: Proactive Planning</u></b></p> <ol style="list-style-type: none"> <li>1. Preparedness and resource planning as per previous trends of illness in past years.</li> <li>2. Screening of individuals at risk of getting infected.</li> <li>3. Client education by increasing awareness about transmission and progression of disease, symptoms and signs when and where to report etc.</li> <li>4. Social Distancing advisory for individuals, families and communities of these high risk groups to prevent community spread.</li> <li>5. IEC through social media and other channels regarding diet and lifestyle, hygiene measures.</li> </ol> <p><b>Individual Treatment Planning:</b></p> <p>अनवस्थितदोषाग्नेर्लघन दोष पाचनम्। ज्वरघ्नं दीपनं कांक्षारुचिलाघवकारकम् ॥ (सु. उ. तं, 39/103)</p>

<p><b>Pre Covid -19 Testing stage</b></p>	<ol style="list-style-type: none"> <li>1. <i>Hetu, Dosha – Dushya</i> Assessment as per the Ayurvedic clinical examination i.e. <i>DashVidha Pariksha, Ashta vidha Pariksha , Body Temperature, VAS</i> scale by Ayurvedic Medical Officer.(Primary Data Collection)</li> <li>2. Explaining <i>Langhana</i> to the patient as per his/her dosha condition. Appetite agni promoting light diets like <i>Panch Mushtika Yusha, Siddha Manda, Peya, Yavagu</i> to promote agni. Concept of <i>Anna kala</i> is to be given to patient.</li> <li>3. <i>Deepana Churna</i> and <i>Vati</i>, On the basis of presentation of <i>Dosha</i> and <i>Agni</i> give <i>Langhan</i>, <i>Dosha pachanam</i> combinations available in the facility ( <i>Hingwasthakadi, Ajmodadi Churan, Tribhuvan Kirti Rasa, Sanjeevani Vati</i>) etc.</li> <li>4. Restriction of <i>Sheetopchara</i> i.e. <i>Sheetodaka, Sheet vayu and Sheeta ahara</i>.</li> <li>5. Advice to prevent ‘<i>Upsaraga</i>’ or Community Transmission. Use of <i>Trifala Haridara Kavala, Dhoompana and Pratimarsha nasya</i> with <i>Goghruta, Til taila</i> etc.</li> <li>6. Every 3 days follow up for resolution of complaints till symptoms resolve. Advice <i>Pathya Apathya</i> for <i>Jwara</i>.</li> <li>7. Documentation of the change in <i>Dosha, Dushya, Agni, Rogi Pariksha</i> Variables in terms of <i>Santapa</i> and other influenza like symptoms body temperature, catarrh, coryza, malaise.</li> </ol> <p><b>Outcome: Decrease in no. Of patients with complaints of Vata Kapha vrুদ্ধi and Jwara prodrome</b></p>
<p>क्रियाकाल 3</p> <p><b>AYUSH Personnel and Patient first encounter with Prodrome of the Influenza like illness and SARI.</b></p> <p>Usually without fever or Fever lesser than 100F for lesser than 2 days.</p>	<p><b>Rationale:</b> This is the stage when the prodrome of <i>Jwara</i> or influenza like illness in the form of symptoms fatigue, agnimandya etc. In order to stop disease progression the patient must be promptly treated.</p> <p><b>Objectives:</b></p> <ol style="list-style-type: none"> <li>1. <b>Prompting Patient to attend the OP clinic during prodrome when he/she is not feeling well. DON'T WAIT FOR FEVER TO SET IN.</b></li> <li>2. <b>To boost body immunity and disease resistance increasing Ojasa.</b></li> <li>3. <b>To ensure a hostile environment for the deterrence of pathogen multiplication.</b></li> <li>4. <b>To contain the illness at Purvaroop stage. Usually patient comes in health contact at this or later state.</b></li> <li>5. <b>To maintain the Upsarga free state- Community Transmission of any influenza like illness.</b></li> </ol> <p><b>Individual Treatment Planning:</b></p> <ol style="list-style-type: none"> <li>1. Identification of <i>Purvarupa of Kapha Vatja Jwara</i> in the patient, detailed history and physical examination as per prescribed rogi pariksha vidhi in AYUSH facility. (Reference Charak Nidana</li> </ol>

Sthana 3/ Sushruta Uttara tantra 39). Fever may be present or may not be present. Look for other signs and symptoms as per patient reporting.

2. *Nav Jwara* treatment protocol of Charaka (ch. Samhita 3/138, 142) to be followed

नव ज्वरे दिवास्वपनं स्नानाभ्यंगान्मैथुनम्।  
क्रोधप्रवातव्यायामान कषायांश्च विवर्जयेत्॥

लघनं स्वेदनं यवाग्वोस्तिक्तको रसः।  
पाचनान्यविपक्वानां दोषाणां तरुणे ज्वरे॥

दीपनं पाचनं चैव ज्वरघ्नमुभयं हितम्।  
स्रोतसां शोधनं बल्यं रुचिस्वेदकरं शिवम्॥ च. चि. (3/ 143-144)

### **Treatment decision on the basis of predominance of Vayu /kapha element**

*Ghrutpana achhasneha pana* in case of vayu dominance with all the *snehapana parihara* With the informed consent of the patient and explaining all the possible complications of the procedure with *Sneha vyapata*.

*Mrudu vaman* with *Madhuyashti- Vasa phant* in cough predominance if there is Kaphotklesha- excessive and tenacious sputum production with or without cough.  
Adequate Panchkarma facility and Skilled work force with experience of *Vamana* is highly indicated.

**Rationale:** To expel out the medium for the proliferation of the infectious agent and clean the *Pranavaha Srotasa*.

### **Shaman and Prayogik Chikitsa**

*Paana:* *Ushnambu pana, Shadang paneeya, Nagarambu*

दीपनं कफच्छेदि पित्तवातानुलोमनम्  
कफवातज्वरितेभ्यो हितमुष्णाम्बु तृटद्धिदम्  
तद्धि मार्दव कृद्दोषस्रोतसां.....(सु. उ. त. 39/106)

तृष्यते सलिलं चोष्णं दद्याद्वातकफज्वरे.....

दीपनं पाचनं चैव ज्वरघ्नमुभयं हि तम्।

स्रोतसां शोधनं बल्यं रुचिस्वेदकरं शिवम्॥ (च. चि. 3/ 143-144)

*Aahaara:*, *Manda, Peya and Yavagu Pana, Yusha, PanchMushtika Yusha*

वमितं लंघितं काले यवागूभिरूपाचरेत्।

यथास्वौषधसिद्धाभिमण्डादिभिरादितः ॥ (च. चि. 3/ 149)

दीपनी पाचनी लघ्वी ज्वरार्तानां ज्वरापहा

	<p>अन्नकाले हिता पेया यथास्वं पाचनैः कृता (सु.उ.त.39/ 109)</p> <p>Recommended: महत्पंचमूली सिद्ध पेया – वायु बाहुल्य; पिप्पल्यादि कषाय सिद्ध पेया यवागू - कफ बाहुल्य</p> <p><b>Kalpa:</b> <i>Sitopladi Churan, Taalisaadi Churana, Vyoshadi Vati, Sanjeevani Vati, Agnitundi Vati, Shadang Paaneeya, Nagarmbu, Lakshmi Vilas Rasa, Tribhuvan Kirti Rasa, Godanti Bhasma.</i></p> <p>3. Restriction of <i>Sheetopchara</i> i.e. <i>Sheetodaka, Sheet vayu and Sheeta ahara.</i></p> <p>4. Advice to prevent ‘<i>Upsaraga</i>’ or Community Transmission. Use of <i>Trifala Haridara Kavala, Dhoompana and Pratimarsha nasya</i> with <i>Goghruta, Til taila</i> etc.</p> <p>5. 3 days follow up till the resolution of complaints. Home care Advice : <i>Pathya Apathya</i> for <i>Jwara</i>. गुरुष्णस्निग्धमधुरान कषायांश्च नवज्वरे, आहारान दोषपक्वार्थं प्रायशः परिवर्ज्येत, (समशन, अध्यशन, विषमाशन, विरुद्धाशन, अजीर्णाशन)</p> <p>6. Documentation of the change in <i>Dosha, Dushya, Agni, Rogi Pariksha</i> Variables in terms of <i>Santapa</i> and other influenza like symptoms body temperature, catarrh, coryza, malaise on a uniform format prescribed by a central organization.</p> <p>7. Notify the patient to the Health and Medical Department for the surveillance.</p> <p><b>Expected Outcome: Prodrome control, Disease progression is interrupted.</b></p>
<p>क्रियाकाल 4</p> <p>Active Phase Patients with symptoms and signs of Influenza Like Illness, Fever &gt; 100 F or 38.3C greater than 2 days lesser than 14 days with respiratory symptoms of Cough, Runny</p>	<p><b>Objectives:</b></p> <ol style="list-style-type: none"><li>1. To isolate the patient for prevention of community transmission.</li><li>2. To diagnose the patient for Covid-19 SARS Illness in an IP setting.</li><li>3. To minimize the <i>Dhatu</i> destruction by <i>Dosha</i> and <i>Vishanu</i>, thereby preventing the further progression of the disease to the moderate stage of SARI.</li><li>4. To mitigate the distressing symptoms of <i>Jwara, Kasa, Pratishaya</i> and maintaining the integrity of <i>Pranavaha srotasa</i>.</li></ol> <p><b>Individual Treatment Planning:</b></p> <ol style="list-style-type: none"><li>5. Identification and Classification of <i>Lakshana of Kapha, Vatja,</i></li></ol>

<p><b>nose without Shortness of Breath</b> <b>2- 14 days of fever</b></p> <p><b>Mild Illness of Covid-19 criteria</b></p> <p><b>Posted for Covid-19 Testing</b></p>	<p><i>Vata sheleshmaja Lakshana</i> in the clinical presentation of the patient tallying with detailed history and physical examination through prescribed <i>Rogi Pariksha Vidhi</i> in AYUSH facility. (Reference Charak Nidana Sthana 3/ Sushruta Uttara tantra 39).</p> <ol style="list-style-type: none"><li>6. Post the patient for Rapid diagnostic testing of Virus, Chest X-ray, Hematological examination for TC, DC, Hb%, ABO grouping, CBC, BT, CT, etc, Blood chemistry for Blood Sugar, Renal, Hepatic Profiling. Rule out other metabolic disorder as per the clinical judgement of the AYUSH Medical Officer. Chest X-ray PA view to rule out inflammatory changes Pneumonia and other pre-existing cardio-respiratory disorder like COPD. ECG in patients with history of any previous cardiac event or illness.</li><li>7. In-patient admission in isolated ward. Daily clinical progress report with Temperature charting, vital monitoring, Input and Output chart especially Diet and Fluids, Urine and Bowel movements.</li><li>8. On the basis on the day of Illness, <i>Dosha, Dushya</i> and <i>Agni</i> Assessment, Post 6 days of the febrile prodrome or illness start the <i>Madhyamvastha</i> Protocol, (Ch. Chikitsa 3/160)/ (Su. Uttartantra 39/110-111) to be followed: पाचनं शमनीयं वा कषायं पाययेद्भिषक । ज्वरितं षडहे अतीते लघ्वन्न प्रति भोजितं ॥ (च.चि.3/ 160)</li></ol> <p>बहुदोषस्य मन्दाग्नेः सप्तसत्रात् परं ज्वरे। लघनाम्बुयवार्गीभ्यदा दोषो न पच्यते॥ तदां तं मुखवैरस्यतृष्णारोचकनाशनैः । कषायैः पाचनेहर्षैर्ज्वर्त्रैः समुपाचरेत् ॥ सु. चि. (39/ 110-111)</p> <p><b>Treatment decisions on the basis of basis of <i>Saamta, Rogi Bala, Dahtu and Malavastha</i></b></p> <p>तीक्ष्णे ज्वरे गुरौ देहे विबद्धेषु मलेषु च । सामदोषं विजानीयाज्वरं पक्व तो अन्यथा॥ मृदौ ज्वरे लघौ देहे प्रचलेषु मलेषु च। पक्वं दोषं विजानीयाज्वरे देयं तदोषधम॥</p> <p><b>Clinical Parameters for <i>Ama Jwara</i> (Su. Uttara Tantra 116-118)</b></p> <p>Temperature: Continuous high fever Body Ache Charting/ VAS scoring: Appetite Charting: Low or no appetite with nausea, water brash Bowel Movement Charting: Frequency, Consistency if constipated or not Urine Charting: Increase in frequency or other complaints with micturition General health complaints: Fatigue, Mood etc.</p>
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*Paana and Ahaara* are same as above

**Shaman and Prayogik Chikitsa**

*Jwara Nashaka Kashaya: Charak Chikitsa 197-203*

ज्वरघ्ना दीपनाश्चैते कषाया दोषपाचनाः।

तृष्णारुचिप्रशमना मुखवैरस्यनाशनाः॥

**Easily Procurable are:** *Kirattikat Mustak, Guduchi Vishvabheshjam Kashaya.*

Underlined are simple, cost effective, easily available and can be easily processed in any setting.

**Kwatha:** व्याघ्र्यादि क्वाथ (अ. ह, चि. 1/ 61), नागरादि पाचनं (अ. ह, चि. 1/ 63), पिप्पलीसारिवाद्राक्षा शतपुष्पाहरेणुभिः (सु. उ. तं. 39/139), नागरादि क्वाथ (सु. उ. तं. 39/193-194)

**Kalpa:** लिहन ज्वरार्तीत्रिफलापिप्पलीं च माक्षिकाम।

कासे श्वासे च मधुना सर्पिषा च सुखी भवेत् ॥ (सु.उ.त. 39/ 302)

*Sitopladi Churan, Taalisaadi Churana, Vyoshadi Vati, Sanjeevani Vati, Martunjaya Rasa, Tribhuvan Kirti Rasa, Agnitundi Vati, Lakshmi Vilasa Rasa Shwaskuthar Rasa and Other important Rasa aushadhi as deemed to be fit for the particular patient and clinical condition.*

**Management by Shodhan Approach: Panchkarma**

On the clinical condition, strength of the patient, patient can be posted for *Shodhan Chikitsa* in a suitable facility where skilled HR is present after obtaining the informed consent from the patient after explaining the possible consequence.

यदा कोष्ठानुगाः पक्वा विबद्धा स्रोतसां मलाः ।

अचिरज्वरितस्यापि तदा दद्याद्विरेचनम ॥ (सु.उ. त. 39/123) विरेचनः

शोधन

- Vamana-** बलिने देयं वमने श्लैष्मिक ज्वरे (सु.उ.त. 39/ 127)
- Asthapana-** निरुहैर्वा हरेन्मला, निरुहो बलमग्निं च विज्वरत्वं मुदं रुचिं, परिपक्वेषु दोषेषु  
प्रयुक्तः शीघ्रमाह्वेत (च.चि.3/ 170)
- Virechana:** क्रियाभिराभिः प्रशमं न प्रयाति यदा ज्वरः,  
अक्षीणमांसबलाग्नेः  
शमयेत्तं विरेचनैः । (च.चि.3/ 170)
- Shiro virechana:** गौरवे शिरसः शूले विद्धेष्विन्द्रियेषु च, जीर्णज्वरे  
रुचिकरं मूर्धविरेचनम (च.चि.3/ 173)
- Anuvasana:** ज्वरे पुराणे संक्षीणे कफपित्ते दृढाग्नये, रूक्षबद्धपुरीषाय

प्रदद्यादानुवासनम(च.चि.3/ 172)

### Symptomatic Management of *Jwara* Symptoms through Dietary Management:

#### Dietary Management of Symptoms

- Loss of Appetite: *Laja Peya* with *Pippali Nagar*.
- Headache: *Raktashali Peya*.
- Diarrhea: *Peya* with *Amla Dadima* and *Nagra*.
- Chest and loin pain: *Raktashali Peya*.
- Cough, Shortness of Breath and Hiccoughs: *Yavagu* with *Vidarigandhyaadi gana*
- Constipation: *Barley Yavagu* with *Pippali* and *Amala*.

**Local Supportive Treatment:** कफवातोत्थयोरेव स्वेदाभ्यंगौ प्रयोयजयेत्। (सु. उ.तं. 39/320)

*Ushna Abhyang, Pradeha, Parisheka, Avgaha* to comfort the patient (Vata, Kapha element). After *madhyma jwara* transcended to *Jeerna jwara*. As it has *Agantuja* element therefore *dhoopana* (*Maheshwar Dhoop, Jatamansyadi Dhoop, Kashyapokta Dhupana*), *Anjana* can also be used.

9. Daily documentation of the change in *Dosha, Dushya, Agni, Rogi Pariksha* Variables in terms of *Santapa* and symptoms body temperature, cough, cold, general condition.
10. Post the patient for pre-discharge Rapid testing and other investigations as above.

#### Discharge Advice:

- **General Diet:** *Mudga, Masoor, chanak, Kulatha Yusha, Patola, Karela and Kantora, Partridge, Chicken soup, Aged Rakta shali grains for Manda, Yavagu, Odana Laja*. Warm water, boiled water during convalescence period.
- Restriction of *Sheetopchara* i.e. *Sheetodaka, Sheet vayu and Sheeta ahara*.
- Advice to prevent 'Upsaraga' or Community Transmission. Use of *Trifala Haridara Kavala, Dhoompana and Pratimarsha nasya* with *Goghruta, Til taila* etc.
- Every day 7 days follow up till resolution of complaints.
- 11. Notify the outcome of the patient to the Health and Medical Department for the surveillance and documentation.

**Expected Outcome:** Health optimization, containing the progress of Disease from Influenza like Illness to Severe Acute Respiratory Illness.

<p>क्रियाकाल 5</p> <p>Severe Covid-19 Illness symptoms above with the onset of the Shortness of Breath or Dyspnea requiring hospitalization.</p> <p>Covid-19 test positive</p> <p>Hospitalization in a Critical Care Unit</p>	<p><b>Objectives:</b></p> <ol style="list-style-type: none"> <li>1. To isolate the patient for prevention of community as well as transmission to health care providers.</li> <li>2. To treat the patient for Severe Acute Respiratory Distress</li> <li>3. To maintain the spontaneous breathing and ventilation as per the P/F ratio &gt;300, good oxygen saturation above 90%.</li> <li>4. To prevent the progression of the disease from moderate to severe state.</li> <li>5. Prevention of complications like Sepsis, Septic Shock, Multiple Organ Dysfunction or failure.</li> </ol> <p><b>TREATMENT PLANNING:</b></p> <ol style="list-style-type: none"> <li>1. Integrative and high end facility (Department of <i>Kayachikitsa</i>) with all the essential diagnostic as well as intervention facilities like ICU.</li> <li>2. Equipped with Non invasive and invasive ventilation instruments, skilled and trained staff with on call Anaesthetist, Physician who can intubate or guide to do so.</li> <li>3. If patient is clinically stable, Spo2 greater than 90%, P/F ratio greater than 300, conscious and well oriented, on no mechanical ventilation the above regimen (Kriyakala 4) can be followed without the element of <i>Panchkarma</i> except as and when required on the recommendation of a <i>Panchkarma</i> Specialist after thorough clinical examination with the attending Physician (Modern Medicine).</li> <li>4. Identification and documentation of the Symptoms of <i>Ojo Vyapada, Sannipata Lakshana</i> as described in <i>Charaka Samhita and Sushruta Samhita</i>: <ul style="list-style-type: none"> <li>• वात श्लेष्म पित्तावर सन्निपातः : शैत्यं कास अरुचिस्तंद्रा पिपासादाह रुग्व्यथा (च.चि. 3/92)</li> <li>• हीनवाते पित्तमध्ये श्लेष्माधिक्यः प्रति श्याय छर्दिरालस्यं तंद्राअरुच्याग्निमार्दवं (च.चि. 3/97)</li> <li>• कफहीने पित्तमध्येवाताधिके सन्निपाताः श्वासः कासः प्रति श्यायो मुखशोषो अति पार्श्वरुक (च.चि. 3/101)</li> </ul> </li> <li>5. Dietary and Local Supportive Measures as in Kriyakala 4.</li> <li>6. Use of <i>Kwatha, Churna or Vati</i> of शट्यादि वर्ग (च. चि. 3/211) बृहत्यादि गण (च. चि. 3/213-14), पथ्यादि पाचनं सिद्ध चूर्ण (अ.ह.चि. 1/ 62-63) व्याघ्री कटुकान्त पाचनं (अ.ह.चि. 1/ 65)</li> <li>7. Use of <i>Rasa aushadhi, Swarna Kalpa: Vruhad vata chitamani Rasa, Kasturi Bhairava Rasa, Shwas kaas chitamani Rasa, Sameer pannaga rasa, Shrung Bhasm, Abhraka Bhasama, Mrut Sanjeevani Sura, Rasona Sura</i> along with <i>Kalpa</i> described above.</li> <li>8. Daily clinical progress charting with Temperature charting, vitals monitoring, Input and Output chart especially Diet and Fluids, Urine and Bowel movements, SpO2, Dyspnea scoring pattern.</li> </ol>
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	<p>9. Note the symptoms of <i>Jwara Moksha</i> and document the same. 10. Patient monitoring for the sepsis, septic shock, Organ Dysfunction. 11. If stable discharged with the above advice as in <i>Kriya Kala 4</i>.</p> <p><b>Expected Outcome: Resolution of the Symptoms, Controlled host response without organ dysfunction and complication prevention.</b></p>
<b>Supplementary Prevention of Relapse Post Febrile Debility Management</b>	<p><b>Rationale:</b> According to <i>Ayurveda</i> theory of <i>Jwara</i>, if not treated adequately or if the patient does not comply to post discharge advice, Fever may relapse or cause post febrile debility.</p> <p>अधिशेते यथा बीजं काले च रोहति। अधिशेते तथा धातुं दोषः काले च कुप्यति॥ (च.चि. 3/68)</p> <p>कृशानां व्याधिमुक्तानां मिथ्याहारादिसेविनाम। अल्पोऽपि दोषो दूष्यादेर्लब्धवा अन्यत्मतो बलम॥ सविपक्षो ज्वरं कुर्याद्विषमं क्षयवृद्धिभाक। दोषः प्रवर्तते तेषां स्वे काले ज्वरयन बली॥ निवर्तते पुनश्चैष प्रत्यनीक बलाबलः। (अ. ह. नि 2/64-65)</p> <p><b>Objectives:</b></p> <ol style="list-style-type: none"><li>1. To follow-up patient for relapse of the symptoms or fever.</li><li>2. To track the symptoms of Post febrile debility.</li><li>3. To make patient functional and healthy and prevent complications of a febrile illness.</li></ol> <p><b>Individual Treatment Plan:</b></p> <ol style="list-style-type: none"><li>1. To note all the <i>hetu</i> and clinical presentation of Relapse and debility as reported by the patient.</li><li>2. Give supportive treatment and <i>Jeerna Jwara</i> and <i>Vishma jwara</i> treatment like <i>AYUSH-64</i>, <i>Samshamni Vati</i>, <i>Rasa Aushadhi</i> with proper anupaan including <i>Asava</i> and <i>Arishta</i>.</li><li>3. Note temperature and all other vital signs, with blood, urine, sputum, Chest-X ray. If necessary post for viral rapid test again.</li><li>4. Treatment Protocol as above as in No. 7, the following may be used</li></ol> <p>योजयेत्त्रिफला पथ्यां गुडुचीं पिप्पली पृथक् । तैस्तैर्विधानैः सगुडं भल्लातकमथापि वा॥ (अ.ह.चि. 1/145) पिप्पली वर्धमानं वा पिबेत क्षीरसाशनः।(सु.उ.त. 39/ 216)</p>

	<p>5. Use of Naimittik Rasayana Dravya like <i>Pippali vardhamana Rasayana, Guda Pippali, Ghrut Pippali, Lashuna Rasayana, Triphala, Haritaki Rasayana Kalpa.</i></p> <p>6. It is important to address post febrile debility one must use dietary measures, as well as <i>Ghruta pana</i> with <i>Kalyanaka Ghruta, Mahatikt Ghruta</i> on the basis of below mentioned principles with advice to follow the <i>Jwara Parihara.</i></p> <p>दौर्बल्याद्देहधातुनां ज्वरो जीर्णो अनुवर्तते। बल्यैः संबृंहं गैस्तस्मादाहारैस्तमुपाचरेत्॥ (च.चि. 3/291)</p> <p>रूक्षं तेजोज्वरकरं तेजसा रूक्षितस्य च। यः स्यादनुबलो धातु स्नेहवध्यः स चानिलः ॥ (च.चि. 3/217)</p> <p>घृतं द्वादशरात्रात्तु देयं सर्वज्वरेषु च। तेनान्तरेणाशयं स्वं गता दोषा भवन्ति हि॥ (सु. उ.तं. 39/320)</p> <p><b>Outcome: No relapse of fever, health optimization, increase in QOL, VAS score and Ayurveda QOL of <i>Jwara Mukti Lakshana.</i></b></p>
<p><b>क्रियाकाल 6</b> <b>Critical Covid-19 Illness, Respiratory failure with MODS, Patient in ICU</b></p>	<p><b>High Risk Treatment Prognostication, Asadhya, if Patient party insists then <i>Pratyakheya Chikitsaa</i> with Use of Rasa aushadhi, Swarna Kalpa, decided as per availability, affordability and the treatment protocol of the institution in which the patient already under intensive care treatment: <i>Vruhad vata chitamani Rasa, Kasturi Bhairava Rasa, Shwas kaas chitamani Rasa, Sameer pannaga rasa, Hemagarbha Pottali, Ratnagarbha Potalli, Yogendra Rasa, Rasaraja Rasa, Shrung Bhasm, Abhraka Bhasama, Mrut Sanjeevani Sura</i> along with <i>Sannipata hara yoga as</i> described above in consultation with Attending Physician from the Modern Medicine in critical care unit, keeping a strict vigil on all the biochemical parameters. Daily basis progress report and documentation of the progress of various parameters for publication and continuous learning.</b></p>

### Conclusion:

Ayurveda appreciates the complexity and diversity of human bodies, etiopathogenesis of diseases, their manifestations and complications, therefore it is very difficult to design a 'one size fits all' treatment plan. *Ayurveda* therefore elucidates the principles of treatment and gives freedom to the attending physician to choose from the available resources to maximize

the health benefit and minimizing the cost of treatment. One important feature of Ayurveda treatment is to prevent the relapse of the symptoms or appearance of other complications of the viral illnesses, which can be used to the advantage of the patient. *Ayurveda* emphasize upon the patient and community education to enhance the patient compliance towards the treatment protocol. India should utilize this as an opportunity to integrate the traditional and conventional systems of medicine and lead by example to display the vibrancy of Indian Medical Pluralism. Therefore a comprehensive management protocol is a requirement to combat viral like illnesses not only in the prevailing situation but also in the future if a threat knocks the door. This protocol is a systematic approach to *Jwara* as per the principles of the *Jwara nidaan* and *chikitsa* enunciated in our classical treatise which if implemented in a rational and scientific manner are bound to bear the fruit of *Jwara mukti* and *arogya* and generate evidence of the efficacy and safety of *Ayurvedic* medicine.

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