

**SIHFW e-newsletter**

Ed. – 2020-21 – E2

October - December Issue

***STATE INSTITUTE OF HEALTH & FAMILY WELFARE,  
RAJASTHAN***

# *SIHFW e-newsletter*

Ed. – 2020-21 – E2

**October - December Issue**



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**From the Director's desk**

Dear Friends !

With passing time, we have accepted the presence of Covid-19 around us. Not only we are successfully fighting it and but also we have been keeping ourselves safe through regular hand hygiene practices, use of mask and social distancing.

Though it has lowered our pace but it has not lowered our spirits and now keeping the ball rolling on, SIHFW brings out its next issue of e-newsletter. This time we have focused on food safety – the adulterants and how we can test them through simple techniques.

We hope this issue is informative for one and all.









Best Wishes!!















Dr. R.P. Doria

Director-SIHFW

Food Safety and Standards Authority of India (FSSAI) conducts testing of food for different type of adulterants and contaminants to ensure safe food to the citizens. Such testing is done by FSSAI notified laboratories.

However, the labs testing require specialized equipments and trained persons. There are some common adulterants and contaminants that can be tested by the people themselves. Here we would see some of the common foods as milk and milk products; oils and fats; sugars; food grains; salts and spices and easy to conduct tests that can be done at home by people.

Food item	Adulteration	Testing method
<b>Milk and milk products</b>	<b>Water in milk</b>	Put a drop of milk on polished slanting surface. <ul style="list-style-type: none"> <li> Pure milk either stays or flows slowly leaving a white trail.</li> <li> Adulterated milk will flow immediately without leaving a mark.</li> </ul>
	<b>Detergent in milk</b>	Shake the milk thoroughly. <ul style="list-style-type: none"> <li> Pure milk forms thin layer of foam.</li> <li> Adulterated milk forms dense lather.</li> </ul>
	<b>Starch in milk and milk products</b>	Add sample of Paneer; Khoya; Chenna with 5 ml of water. Cool and add 2-3 drops of tincture of iodine. <ul style="list-style-type: none"> <li> Pure milk does not change color.</li> <li> Adulterated milk changes color to blue.</li> </ul> (for testing milk - adding water and boiling is not required)
	<b>Mashed potato, sweet potatoes and other starches in ghee/ butter</b>	Add ½ teaspoon of ghee/butter in transparent glass bowl. Add 2-3 drops of tincture of iodine. <ul style="list-style-type: none"> <li> Pure ghee/butter does not change color.</li> <li> Adulterated ghee/butter changes color to blue.</li> </ul>
<b>Oils and Fats</b>	<b>Other oil in Coconut Oil</b>	Take coconut oil in transparent glass. Refrigerate for ½ hr.

		<ul style="list-style-type: none"> <li> Pure coconut oil solidifies</li> <li> Other oils remain as separate layer.</li> </ul>
<b>Sugars and Confectionaries</b>	<b>TOCP (Tri-Ortho-Cresyl-Phosphate) in oils and fats</b>	<p>Take 2 ml sample of oil. Add little amount of yellow butter (solid).</p> <ul style="list-style-type: none"> <li> Adulterated oils/fats turn red immediately.</li> </ul>
	<b>Sugar solution in honey</b>	<p>Take a transparent glass of water. Add a drop of honey in it.</p> <ul style="list-style-type: none"> <li> Pure honey will not disperse.</li> <li> Adulterated honey will disperse in water.</li> </ul> <p>Take a cotton wick dipped in honey and light with match stick.</p> <ul style="list-style-type: none"> <li> Pure honey will burn.</li> <li> Adulterated honey will not burn due to addition of water or even if it burns it will make cracking sound.</li> </ul>
	<b>Chalk powder in sugar/ jaggery</b>	<p>Take transparent glass of water. Add 10gms of sample.</p> <ul style="list-style-type: none"> <li> Adulterants will settle down at the bottom of the glass.</li> </ul>
<b>Food grains</b>	<b>Added colour in food grains</b>	<p>Take transparent glass of water. Add 2 teaspoons of food grains and mix thoroughly.</p> <ul style="list-style-type: none"> <li> Pure food grains do not leave color.</li> <li> Adulterated food colors leave colors in water immediately.</li> </ul>
	<b>Turmeric in Sella rice</b>	<p>Take a teaspoon of rice in a plate. Sprinkle small amount of soaked lime (chuna used in paan).</p> <ul style="list-style-type: none"> <li> Pure rice grains do not form red color.</li> <li> Adulterated grains form red color.</li> </ul>
<b>Salts, Spices and Condiments</b>	<b>Foreign particles in hing</b>	<p>Burn small quantity of hing in a stainless steel spoon.</p> <ul style="list-style-type: none"> <li> Pure hing will burn like camphor.</li> <li> Adulterated hing will not produce bright flames</li> </ul>

like camphor.

Take a pinch of crushed hing in a small transparent glass container. Add 1 teaspoon of water and shake well.

- ❖ Pure hing will produce milky white solution with no sediments.

**Papaya seeds in black pepper**

Put small amount of black pepper in a glass of water.

- ❖ Pure black pepper settles at the bottom.
- ❖ Papaya seeds float on the surface of water.

**Synthetic colors in chilli powder**

Take a glass of water. Sprinkle chili powder on the surface.

- ❖ Pure chili powder do not leave colour while descending.
- ❖ Adulterated chili powder starts descending in colour streaks.

**Starch in hing**

Take a glass of water and add a pinch of hing. Add 2-3 drops of tincture of iodine.

- ❖ Pure hing solution does not change colour.
- ❖ Adulterated hing with starch shows blue colour.

**Chalk in common salt**

Take a glass of water. Add a spoonful of salt.

- ❖ Salt adulterated with chalk will make the solution white and insoluble impurities will settle down.

**Exhausted cloves in cloves**

Take a glass of water. Add ½ teaspoon of cloves.

- ❖ Pure cloves will settle down.
- ❖ Other adulterated particles will float.

**Grass seeds colored with charcoal dust in cumin seeds**











Rub small amount of cumin seeds on palm.

- ❖ Adulterated cumin seeds will leave blackish mark on the palm.

**Lead chromate in turmeric whole**

Take a glass of water. Add whole turmeric in it.

- ❖ Pure turmeric will not leave color.

	<p> Adulterated turmeric will appear bright in colour and leave colour immediately.</p>
<p><b>Artificial color in turmeric powder</b></p>	<p>Take a glass of water. Add a teaspoon of turmeric powder.</p> <p> Pure turmeric powder leaves light yellow colour while settling down.</p> <p> Adulterated turmeric powder leaves strong yellow colour while settling down.</p>
<p><b>Difference between common salt and iodized salt</b></p>	<p>Cut a piece of potato. Add salt and wait for a minute. Add two drops of lemon juice.</p> <p> Iodized salt will make the potato turn blue.</p> <p> Common salt will not make the potato turn blue.</p>
<p><b>Colored dried tendrils of maize cob in saffron</b></p>	<p>Artificial saffron is made with maize cobs soaked in sugar and colored with coal tar.</p> <p> Pure saffron does not break easily.</p> <p>Take a small quantity of water in glass. Add small quantity of saffron leaves in it.</p> <p> Pure saffron colour will give colour as long as it is allowed to stay in water.</p> <p> The colour of adulterated saffron dissolves rapidly in water.</p>
<p><b>Beverages</b></p> <p><b>Used tea in tea leaves</b></p>	<p>Take a filter paper and spread few tea leaves. Sprinkle water to wet filter paper. Wash filter paper under tap water and see filter paper against light.</p> <p> Pure tea leaves will not stain filter paper.</p> <p> Adulterated tea leaves with coal tar will leave stain.</p> <p>Take small amount of tea leaves and place it in the center of the filter paper. Add water drop by drop at the</p>



heap of the tea leaves.

Tea leaves adulterated with colored tea, water will dissolve the added color and leave streaks of colors in the filter paper.

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**Iron filings in tea leaves**

Take small quantity of tea leaves in a glass plate. Move a magnet through the tea leaves.

-  Pure tea leaves will have no filings seen on magnet.
-  Tea leaves adulterated with iron filings will have iron filings on magnet.

## Sensory evaluation of food products

Food item	Adulterant	Testing method
<b>Milk</b>	Synthetic milk	<ul style="list-style-type: none"> <li>✓ Gives bitter taste.</li> <li>✓ On rubbing between fingers gives soapy feeling.</li> </ul>
<b>Black pepper/ Cloves</b>	Coated with mineral oil	<ul style="list-style-type: none"> <li>✓ Gives kerosene like smell.</li> </ul>
<b>Chilli powder</b>	Brick powder/ Talcum powder	<p>Add a teaspoon of chilli powder in water. Rub the residue of chilli powder.</p> <ul style="list-style-type: none"> <li>✓ If there is grittiness, shows presence of sand/ brick powder.</li> <li>✓ In case of white residue, when rubbed gives soapy and smooth feel indicates presence of soap stone.</li> </ul>
<b>Cloves</b>	Oil extracted cloves	<ul style="list-style-type: none"> <li>✓ Small size and shrunken appearance.</li> <li>✓ Natural strong pungency is less pronounced.</li> </ul>
<b>Sugar</b>	Urea	<ul style="list-style-type: none"> <li>✓ When rubbed in palm or dissolved in water there is smell of ammonia in case adulterated with urea.</li> </ul>
<b>Atta</b>	Resultant Atta/ Maida	<ul style="list-style-type: none"> <li>✓ Dough prepared with maida mixed atta, less water is required.</li> <li>✓ Atta chapatti taste lightly sweetish while those made of maida are insipid or tasteless.</li> </ul>
<b>Sago (Sabudana)</b>	Sand/ Talcum	<ul style="list-style-type: none"> <li>✓ Gritty feeling when placed in mouth.</li> </ul>
<b>Powdered Spices</b>	Common salt	<ul style="list-style-type: none"> <li>✓ Will taste salty</li> </ul>
<b>Sweets</b>	Artificial sweetener (added in place of sugar)	<ul style="list-style-type: none"> <li>✓ When tasted, lingering sweetness on tongue for a long time and then leaves bitterness.</li> </ul>



**Health news briefs....**

**WHO reveals leading causes of death and disability worldwide**

According to WHO's 2019 Global Health Estimates, Non-communicable diseases now make up 7 of the world's top 10 causes of death. This is an increase from 4 of the 10 leading causes in 2000.

Heart disease has remained the leading cause of death; however, it is now killing more people than ever before.

Alzheimer's disease and other forms of dementia are now among the top 10 causes of death worldwide. Women are disproportionately affected: globally, 65% of deaths from Alzheimer's and other forms of dementia are women. Deaths from diabetes increased by 70% globally, with an 80% rise in deaths among males.

In 2019, pneumonia and other lower respiratory infections were the deadliest group of communicable diseases and together ranked as the 4th leading cause of death. However, compared to 2000, lower respiratory infections were claiming fewer lives than in the past.

The estimates clearly highlight the need for an intensified global focus on preventing and treating cardiovascular diseases, cancer, diabetes and chronic respiratory diseases, as well as tackling injuries, as set out in the agenda for the UN Sustainable Development Goals.

*(<https://www.who.int/news/item/09-12-2020-who-reveals-leading-causes-of-death-and-disability-worldwide-2000-2019>)*

**2021 designated as the International Year of Health and Care Workers**

The year 2021 has been unanimously designated as the *International Year of Health and Care Workers (YHCW)*, recognizing the dedication and sacrifice of the millions of health and care workers at the forefront of the Covid-19 pandemic.

The Member States expressed commitment to the ethical principles and practices of the Code, urging prioritization of support and safeguards for the countries with the greatest vulnerability, including greater investment.

*(<https://www.who.int/news/item/11-11-2020-2021-designated-as-the-international-year-of-health-and-care-workers>)*

### **Evidence-based Impact of National Deworming Day in India**

The National Deworming Day (NDD), a flagship program of the Ministry of Health and Family Welfare, is implemented, since 2015, as a biannual single day program implemented through the platforms of schools and anganwadis. Albendazole tablet, is used for treatment of intestinal worms in children and adolescents as part of Mass Drug Administration programs globally. In the last round of deworming earlier this year in the country (which was halted due to the COVID pandemic), 11 crore children and adolescents were administered Albendazole tablet across 25 States/UTs.

As per the follow-up prevalence surveys, initiated by the MoHFW, compared to the baseline prevalence survey Chhattisgarh, Himachal Pradesh, Meghalaya, Sikkim, Telangana, Tripura, Rajasthan, Madhya Pradesh and Bihar have shown substantial reduction in worm prevalence.

Rajasthan, which implements an annual round only due to low baseline of 21.1 in 2013, has seen significant reduction to the level of less than 1% in 2019 as per the survey.

*(<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1666053/20.10.2020>)*

**WHO World Malaria Report 2020: India continues to make Impressive Gains in reduction of Malaria Burden**

The World Malaria Report (WMR) 2020 released by WHO, which gives the estimated cases for malaria across the world, based on mathematical projections, indicates that India has made considerable progress in reducing its malaria burden.

India is the only high endemic country which has reported a decline of 17.6% in 2019 as compared to 2018. The Annual Parasitic Incidence (API) reduced by 27.6% in 2018 compared to 2017 and by 18.4% in 2019 as compared to 2018. India has sustained API less than one since year 2012.

India has also contributed to the largest drop in cases region-wide, from approximately 20 million to about 6 million. The percentage drop in the malaria cases was 71.8% and deaths were 73.9% between 2000 to 2019.

Malaria Elimination efforts were initiated in the country in 2015 and were intensified after the launch of National Framework for Malaria Elimination (NFME) in 2016 by the Ministry of Health and Family Welfare. National Strategic Plan for Malaria Elimination (2017-22) was launched by the Health Ministry in July, 2017 which laid down strategies for the next five years.

*(<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1677601/02.12.2020>)*

**Important Health Days/ Week – January – March 2021**

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January 30	World Leprosy Eradication Day
February 4	World Cancer Day
February 12	Sexual and Reproductive Health Awareness Day
March 6	Glaucoma Day
March 11	No Smoking Day
March 12	World Kidney Day
March 15	World Disabled Day
March 16	Measles Immunization Day
March 24	World Tuberculosis Day

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**SIHFW's Activities.....**

**Training Courses, Meetings and Workshops**

<b><u>Health Area</u></b>	<b>Trainings/ Meetings/ Workshops</b>
<b>Adolescent Health</b>	Consultation Meeting for Adolescent Health Trainings of School Teachers in collaboration with IPE Global (2 batches)
	Master ToT on Adolescent Health for Govt. School Teachers from Dholpur under UDAAN IPE Global project (2 batches)
	Meeting for School Health Program with DIET/SCERT
	Training on RSK for Medical Officers (2 batches)
	Training for MTs for giving training to Peer Educators (7 batches)
	Induction training of Peer Educators (3 batches)
<b>Save the Girl Child</b>	Training on PCPNDT IMPACT software for Appropriate Authorities from districts (2 batches)
<b>Child Health</b>	Workshop on Child Death Review (6 batches)
	ToT on HBYC (2 batches)
	ToT on SAANS (5 batches)
	Training on F-IMNCI for Staff Nurses (1 batch)
	Training on NSSK for Medical Officers (2 batches)
	Training on NSSK for Staff Nurses (1 batches)
	Training on NSSK for ANMs (1 batches)
	Training on FBNC (2 batches)
<b>Community Processes</b>	ToT of ASHA
	Training on ASHA Facilitators Handbook (13 batches)
	Training on VHSWNC for ASHA Supervisory level (18 batches)
	Training of Community Action for Health (2 batches)
<b>Family Welfare</b>	ToT on Injectables for Medical Officers
	ToT on Laproscopic Sterilization
	Training on Laproscopic Sterilization for Doctors (4 batches)
<b>Food Safety</b>	Training of Food Safety Supervisors for Street Food Vendors under FSSAI

<b>Foundation/ Induction</b>	Foundation Course for Newly Recruited Medical Officers (2 batches)
<b>IDSP/ Covid-19</b>	Review meeting of Covid-19 and seasonal diseases
	Review of Microbiology Labs
	Training on Oxygen Therapy for Medical Officers (11 batches)
	COVID-19 Vaccine preparedness meeting for Rajasthan by ITSU
<b>Immunization</b>	Training on Routine Immunization for Medical Officers (10 batches)
	Training on Routine Immunization for Health Workers (22 batches)
<b>Maternal Health</b>	Webinar on experience sharing and cross learning under Dakshta (12 batches)
	ToT on SBA
	Training of MOs on Safe Abortion (3 batches)
	Training on Skilled Birth Attendant (12 batches)
	Refresher Training on Skilled Birth Attendant (4 batches)
	Training of Medical Officers on BEmOC (9 batches)
<b>National Health Programs</b>	Review meeting for Finance and Logistic Consultants under NVHCP
	Review Meeting cum training for District Coordinators under NTCP
	Sensitization program cum training for Counselors/ Psychologists under NTCP
	Training on Vector Borne Diseases for Medical Officers (4 batches)
	Training of Pharmacist under NVHCP
	Training on Malaria Microscopy for Lab Technicians (2)
	Training on ASHA NCD Screening (3 batches)
	Training on NPCDCS for BPMs (4 batches)
	Training under NVHCP for Medical personnels
Training on Rabies (2 batches)	
<b>Professional Development</b>	Training on Appreciative Enquiry under UNICEF
<b>Public Private Partnership</b>	Orientation on tools for External Evaluation of UPHCs running under PPP mode

***SIHFW's participation***

•	Dr. Vishal Singh, Faculty and Ms. Richa Chhabra, SRO attended the training provided to the hired agency for developing e-training module for Antara at New Delhi on Oct. 1-2, 2020.
•	Data Collection from UPHCs of Jaipur I, Jaipur II, Sikar and Ajmer covered under the 'External Evaluation of UPHCs running on PPP mode' was done by the SIHFW Staff on Oct. 7-8, 2020.
•	Hand-holding support for establishing Skill Lab under Saans Project with Save The Children was provided at Tonk by Dr. Aditya Atreya, Registrar; Dr. Richa Chaturvedy, Consultant – RCH (Med.) and Mr. Aseem Mohd. Malawat, Consultant – RCH (Mgmt.).
•	Review meeting of Covid-19 and seasonal diseases and documentation of Covid-19 activities was done at Ajmer, Churu and Bikaner and was presided by Dr. Ravi Prakash Sharma, Director and facilitated by Dr. Richa Chaturvedy, Consultant – RCH (Med.) Mr. Aseem Mohd. Malawat, Consultant – RCH (Mgmt.) and Ms. Archana Saxena, RO.
•	Virtual sessions on "Orientation on smooth functioning of VHSNC" organized with DM&HS, in zone-wise batches were attended and sessions were presided by Dr. Vishal Singh, Faculty.

***Activites in photos***



Foundation Course for Medical Officers - Virtual Session



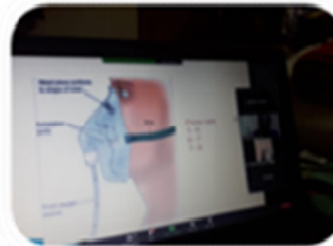
Orientation of LISA software to Medical Officers at SIHFW



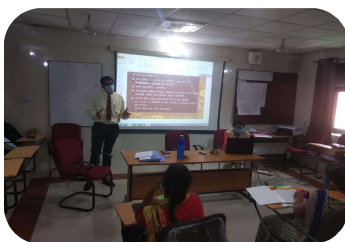
Training on ASHA Facilitators Handbook at SIHFW



Foundation Course for Medical Officers - Classroom Session at SIHFW



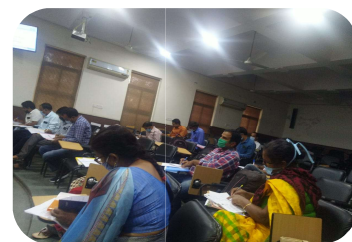
Training of Medical Officers on Oxygen Therapy



Training on VHSNC at HFWTC Ajmer



Group Work during Training on VHSNC at HFWTC Ajmer

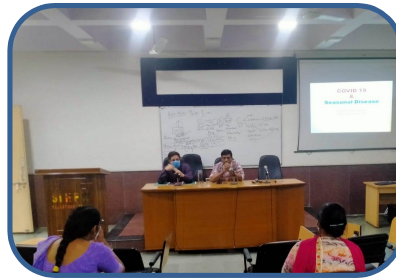


Training on VHSNC at SIHFW





**Training of Trainers on  
NSSK**



**Training on ASHA  
Facilitators Handbook**



**Workshop on Child  
Death Review**



**Training on VBDs under  
NVBDCP**



**Training on Routine  
Immunization for  
Health Workers**



**Training on VBDs for MOs**



**Training on Rabies**



**Training on Malaria Microscopy for LTs**



**Meeting regarding Covid-19 vaccination preparedness**



**Foundation Course for newly recruited MOs**



**Training on RI for Health Workers at district**



**Training on VHSNWC at district**