



## MILK AND MILK HYGIENE

**Fariha Liaquat** 

Milk is secreted by the animals to serve as sole and wholesome food for their suckling young ones. It is a final blend of all the nutrients necessary for the growth and development of the young ones. It is a good source of fats, proteins, sugars, vitamins and minerals.

#### Milk proteins

The chief protein of milk is casein. It occurs in combination with calcium. Other proteins are lactalbumin and lactoglobulin. They contain all the essential amino acids. Animal milk contains nearly three times as much protein as human milk.

#### Milk fat

Varies from 3.4 percent to 8.8 percent in buffalo milk. Human milk contains a higher percentage of linolenic acid and oleic acid. It is a good source of vitamin D and retinol.

#### Carbohydrates

Carbohydrates in all types of milk is lactose or milk sugar. It is found nowhere else in nature. It is less sweet than cane sugar. Human milk contains more sugar.

#### Minerals and vitamins

Milk contains almost all minerals and vitamins needed by the body, particularly rich in calcium. However it is a poor source of iron and vitamin C.

#### Vegetable milk

It is prepared from certain vegetable foods i.e. groundnut, soya bean and may be used as a substitute of animal milk. It is lactose free so can be given to lactose intolerant babies.

#### **Toned milk**

It is a blend of natural milk and made up milk, 1 part of water + 1 part of natural milk + 1/8 part of skim milk powder. Its composition is the same as cow's milk. It is cheaper and wholesome.

#### Source of infection

Multiple sources like, the dairy animal, human handler, the environment i.e contaminated vessels, polluted water, flies , dust , etc.

#### Clean and safe milk

Clean milk is donated milk from a healthy animal which has been produced and handled in hygienic conditions, which contains only a small number of harmless organisms, which is capable of remaining sweet from delivery to delivery in summer and for a day or two in winter without being treated by heat.

First essential is a safe and clean animal. Second, the premises where the animal is kept and milked should be sanitary. Milk vessels should be sterilized and kept covered. Water supply should be bacteriologically safe. Milk handlers should be free from communicable diseases. Milk should be cooled immediately below 10°C after it is drawn to retard the growth of bacteria.

#### Methylene blue reduction test

It is an indirect method for the detection of bacteria in milk. Test is carried out on the milk accepted for pasteurization. Definite quantity of methylene blue is added to 10 ml of milk and the sample is held at a uniform temperature of 37°C until the blue color disappears. This test serves as a confirmation of heavy contamination and compared with direct counts of bacteria, it saves time and money.



- ماں کے دود رہی اہمیت اورا آفا دیت سے کسی کوا زکارٹیس ۔ بیقدرت کا ایک انمول تخذہ جو بچے کے لئے بے حدضروری ہے۔ ماں کا دود رہ بچے کے لئے نہ صرف ایک مکمل غذاہے بلکہ اُسے ہرطر ح کی بہاری ہے بھی تحفوظ رکھتا ہے۔
  - ترجمه اور مايئن دوسال تك بجون كواينا دود ه يلايئن \_
  - سورہ بقرہ کی اس آیت سے پیتہ چاتا ہے کہ ہمارا ندجب بھی مال کو اپنا دودھ پلانے کی ترغیب دیتا ہے۔
  - ہیلتے پر وفیشنل ہونے کے ناملے ہمارالیفرض ہے کہ ہر حاملہ عورت اور نوز ایند بچے کی مال کواپنا دودھ پلانے کی ہدایت دیں۔
    - 🔵 تمام حاملہ مایش نیچ کی پیدائش کے فوز ابعد بچے کواپی چھاتی کے ساتھ لگایش اورا پنادودھ دیں۔
  - ِ بِحِي كُوسِ فِتِم كَا هَمُّيْ مثلاً عرق، ياني،شهر،گراپ واثر،نونهال،گر،چيني،شربت،گائے، بھينس،مکري،اورڈ بے کا دودھ بالکل نیدیں۔
    - 🔵 قدرت نے ماں کے دودھ میں تمام حفاظتی عناصراور مکمل غذا یعت وی ہے۔اس لئے پہلے چھے ماہ بیچ کوصرف ماں کا دودھ دیں۔
      - 🗨 چھاہ کے بعد مایش اپنے دود ھے ساتھ ساتھ ساتھ امثلاً کچھڑی ،سا گودانہ،سوجی کی تھیر، دہی اور کیلانٹر وع کریں۔
        - مايئن دوسال تك يج كوا پنادودھ يلايئن \_
          - بول عے بے کورور میر گزندریں۔
        - فاندانی منصوبہ بندی کے طریقوں بڑمل کریں تا کہ ماں اور بیچے کی صحت اچھی ہو۔



## **LEPROSY (HENSEN DISEASE)**

**Nadia Tufail** 

#### Definition:

A chronic infectious disease caused by bacteria named Mycobacterium Lepromatosis and Mycobacterium Leprae.



Initially, infections are without symptoms and typically remain this way for 5 to as long as 20 years. Symptoms that develop include granulomas of the nerves, respiratory tract, skin, and eyes. WHO's Guide to Eliminate Leprosy as a Public Health Problem (1997) defines a case of leprosy as a person having one or more of the following, and who has yet to complete a full course of treatment:

- \* Hypo-pigmented or reddish skin lesion(s) with definite loss of sensation
- \* Damage to the peripheral nerves, as demonstrated by loss of sensation and mobility to hands, feet or face
- \* Positive skin smears

#### **Clinical features:**

The disease can cause:

- \* Skin lesions that may be faded/discolored
- \* Growths on the skin
- \* Thick, stiff or dry skin
- \* Severe pain
- \* Numbness on affected areas of the skin
- \* Muscle weakness or paralysis (especially in the hands and feet)
- Eye problems (that may lead to blindness) involve redness, pain, narrowing and irregular pupil)
- Enlarged nerves (especially those around the elbow and knee)
- \* Astuffy nose
- \* Nosebleeds
- \* Ulcers on the soles of feet
- Since Hansen's disease affects the nerves, loss of feeling or sensation can occur.
- \* When loss of sensation occurs, injuries (such as burns or fractures) may go unnoticed. You should always try to avoid injuries.

#### Diagnosis & Treatment: WHO Multi Drug Therapy (MDT)

The diagnosis of leprosy is often established from the patient's clinical signs and symptoms. A careful skin and neurological examination will be undertaken by a health

care professional. If a laboratory is available, skin smears or skin biopsies may be obtained for a more definitive diagnosis. Skin smears or biopsy material that show acid-fast bacilli with the Ziehl-Neelsen stain or the Fite's stain can diagnose multibacillary leprosy. If bacteria are absent, paucibacillary leprosy can be diagnosed. New techniques involve DNA detection from skin smear by polymerase chain reaction (PCR).

Since 1995, WHO has supplied MDT free of cost to leprosy patients in all endemic countries. The drugs used in WHO-MDT are a combination of rifampicin, clofazimine and dapsone for MB (Multi Bacillary) leprosy patients and rifampicin and dapsone for PB (Primary Bacillary) leprosy patients. Among these rifampicin is the most important antileprosy drug and therefore is included in the treatment of both types of leprosy. Treatment of leprosy with only one antileprosy drug will always result in development of drug resistance to that drug. Treatment with dapsone or any other antileprosy drug used as monotherapy should be considered as unethical practice.

#### Prevention:

- \* Early diagnosis and treatment
- \* Public education and community awareness
- Close monitoring of household contacts of patients with leprosy
- Chemoprophylaxis with Rifampicin in close contacts may be advocated
- Vaccination (several vaccines, including the BCG vaccine), provide variable levels of protection against leprosy in certain populations

#### Rehabilitation:

There are two major categories of rehabilitation Firstly, physical rehabilitation seeks to help people with their normal daily activities; the methods include physiotherapy and occupational therapy, and sometimes specialized forms of reconstructive surgery to improve the functioning of the hands or feet; special treatment of certain eye problems may also be possible.

The second major category is socioeconomic rehabilitation, Many people with leprosy face the loss of their jobs and divorce or other forms of rejection by society. Rehabilitation involves informing and reassuring the families and communities of the facts about leprosy, as well as developing specific interventions that help to restore dignity to those affected. One of the major aims is to empower individuals, enabling them to have more control over their own situations.

#### Leprosy and Pakistan:

400 cases were reported in Pakistan last year; among these most are concentrated in northern areas, including Chitral, Muzafargarh district and in certain cities like Lahore and Karachi. Pakistan has attained this effective control though intervention at three levels.

**Primary Level:** Through general primary care health workers.

Secondary Level: Leprosy resource persons (1-3 districts), Dermatologists

Tertiary Level: Leprosy Resource Centers: MALC (Marie Adelaide Leprosy Center) and Aid to Leprosy Patients (APL), Rawalpindi.



### IPH Conducts 2 Days Training Workshop For Newly Employed Assistant Entomologists & Environment Inspectors



Two days job specific orientation training workshop was organized for newly recruited Assistant Entomologists and Environmental Inspectors with main emphasis on Dengue Prevention & control at Medical Entomology & Parasitology (MEP) Department in IPH Lahore on 12th and 13th January 2015. A comprehensive lecture was delivered by Dr. Mohammad Humayun, Head of MEP Department regarding identification, surveillance, prevention and control of Aedes aegypti mosquito. Dr. Islam Zafar, Additional Director General (EP&C), Dr. Zaka Ashraf and Dr. Tayyab from DGHS, Punjab also attended and participated in the workshop. Mr. Abdul Majeed (Senior Entomologist Technician) and Mr. Mohammad Abbas (Senior Lab. Technician) gave practical demonstration of various surveillance and control methods for Dengue vector in the MEP Lab. Total 18 participants took active interest in the workshop and found it very informative and comprehensive. Reported by Mohammad Aslam

# IPH Contributes Towards Development of New Sanitation Policy for Puniab

Department of Public Health Engineering and other related departments of Government of the Punjab are nowadays formulating the new sanitation policy which will be implemented in Punjab province in near future. Dr. Sajjad ul Hassan, HOD of Environmental Health has been actively representing IPH and Health Department in this important task. The new policy once implemented will contribute towards prevention of multiple diseases in the community. **Reported by Malik Azeem** 

# IPH Staff & Students Participate in Measles Campaign As UC Monitors

Health Department, Govt. of the Punjab conducted Measles Special Immunization Activity (SIA) between 26th January and 9th February 2015. Three demonstrators and 10 post graduate students of IPH joined this activity as union council monitors on special instructions of Dean IPH to help District Health authorities. The responsibilities included daily monitoring survey of field/ fixed teams, data collection & compilation, & submission of this information to the concerned DOH of the respective town in the evening meeting for discussion. Reported by Tahir Mahmood

# IPH Conducts Measles and Polio Campaign

IPH conducted measles and polio campaigns through its

static EPI center in the department of Maternal & Child Health as part of the Measles Special Immunization Activity (SIA) between 26th January & 9th February



2015. 331 children, 6 months to 10 years of age were immunized against measles and polio. Health awareness about measles and polio, preventive measures and vaccination was provided through health education in the centre and by LHVs during their field visits. **Reported by Rukhsana Hameed** 

#### **IPH Registers with UHS for CME**

Pakistan Medical & Dental Council has made it mandatory for all doctors to submit 5 to 10 credit hours per year of registration in order to practice as a general physician/ specialist. In case of non-submission of these credit hours issued by accredited institutions only, the concerned doctor will be registered as RMP but will not be issued a license to practice. Currently only a few institutions are accredited with PMDC for CME and University of Health Sciences Lahore is one of them. The university has offered its affiliated institutions to register their teaching activities well ahead in time so that they may be considered for crediting. IPH Lahore has taken the point to get its seminars and workshops registered so that the facilitators and the participants benefit from it. A total of 65 such activities have already been registered for which a schedule will be issued in near future. Reported by Malik Azeem

### **Routine IPH Activities During January 2015**

Persons receiving health education on dengue 3	194
Clients receiving family planning services	55
Expectant mothers receiving antenatal care	70
Mothers receiving post natal care	07
Patients utilising public dental health services	199
International polio vaccination	77
Children receiving vaccination of:	
BCG	21
Pneumococcal	73
Pentavalent	73
Tetanus Toxoid	18
Oral Polio	161
Measles	159
8	2808
Nutrition Diagnostic Biochemical Lab. Tests	126
	585
Patients having sputum cultured for AFB	590
Tests for Hepatitis B	17
Tests for Hepatitis C	17
CBC tests performed	29
	250
Adults receiving health care	365
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