

Health Care Services

NSQF Level -1

(413)

Class - IX

Student Handbook



CENTRAL BOARD OF SECONDARY EDUCATION

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Health Care Services NSQF Level -1

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CBSE STUDY MATERIAL 2019

भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण 'प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म
और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता
प्राप्त कराने के लिए
तथा उन सब में व्यक्ति की गरिमा

और राष्ट्र की एकता और अखंडता
सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई० को एतद्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

1. संविधान (बचालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से " प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य " के स्थान पर प्रतिस्थापित।
2. संविधान (बचालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से " राष्ट्र की एकता " के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्तव्य

51 क. मूल कर्तव्य - भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अशुण्ण रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणी मात्र के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;
- ¹(ट) यदि माता-पिता या संरक्षक हैं, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करें।

1. संविधान (छयासीवां संशोधन) अधिनियम, 2002 की धारा 4 द्वारा प्रतिस्थापित।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **'SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC'** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the² unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

-
1. Subs. by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
 2. Subs. by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "unity of the Nation" (w.e.f. 3.1.1977)
-

THE CONSTITUTION OF INDIA

Chapter IV A

FUNDAMENTAL DUTIES

ARTICLE 51A

Fundamental Duties - It shall be the duty of every citizen of India-

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- ¹(k) to provide opportunities for education to his/her child or, as the case may be, ward between age of 6 and 14 years.

-
1. Subs. by the Constitution (Eighty - Sixth Amendment) Act, 2002

Preface

The Student Handbook is a part of the training package developed for the vocational subject under the National Skill Qualification Framework (NSQF), an initiative of Government of India. The NSQF sets common principles and guidelines for a nationally recognized qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities. It is envisaged that the NSQF will promote transparency of qualifications, cross-sectoral learning, student-centred learning and facilitate learner's mobility between different qualifications, thus encouraging lifelong learning. The National Curriculum Framework, 2005 recommends that children's life at school must be linked to their life outside the school. This principle makes a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home, community and the workplace.

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), a constituent of National Council of Educational Research and Training (NCERT) has developed modular curriculum and learning materials for the vocational subjects offered from Classes IX to XII (NSQF Levels 1-4). This Student Handbook, which has been developed keeping in view the National Occupational Standards (NOS) set by the Healthcare Sector Skill Council (HSSC) for the Job Role of Patient Care Assistant/General Duty Assistant is meant for students who have passed Class-VIII or equivalent examination. The National Occupational Standards are a set of competency standards used for recognizing and assessing occupational skills and knowledge needed to perform effectively in the workplace.

The success of vocationalisation of education in schools depends on the steps that Principals and Teachers will take to encourage children to reflect their own learning and to pursue imaginative and on-the-job training activities. Participation of learners in skill development exercises and inculcation of values and creativity is possible if we involve children as participants in learning and not as receivers of information. Flexibility in the daily time-table would be a necessity to maintain the rigour in implementing the activities and the required number of teaching days will have to be increased for teaching vocational subjects.

The Student Handbook has been developed and reviewed by a group of experts and their contributions are admirably acknowledged. The feedback and suggestions on the content by the teachers and other stakeholders will be of immense value to us in bringing about necessary improvement in the Student Handbook.

Chairperson, CBSE

Advisors

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Contents

Unit 1 : Healthcare Delivery Systems

Session 1: Describe Healthcare Delivery Systems

Session 2: Identify Components and Activities of Hospital

Session 3: Describe Role and Function of Clinic

Session 4: Describe Rehabilitation Care Facilities

Session 5: Describe Long Term Care Facilities

Session 6: Hospice Care

Unit 2 : Role of Patient Care Assistant

Session 1: Describe the Role of Patient Care Assistant

Session 2: Identify Various Activities of Patient's Daily Care

Session 3: Describe Basic Requirements for Patient Comfort

Session 4: Describe Various Aspects of Patient's Safety

Session 5: Describe Qualities of a Good Patient Care Assistant

Session 6: Biomedical Waste and Its Management

Unit 3 : Personal Hygiene and Hygiene Standards

Session 1: Demonstrate Good Hygiene Practice

Session 2: Describe Factors Affecting Good Health

Session 3: Perform Hand Washing

Session 4: Demonstrate Personal Grooming

Unit 4 : Primary Healthcare and Emergency Medical Response

Session 1: Describe Essential Components of Primary Healthcare

Session 2: Demonstrate Chain of Survival

Unit 5 : Immunization

Session 1: Differentiate between various types of Immunity

Session 2: Describe Immunization Schedule

Session 3: Describe Key Components of Universal Immunization Programme

Session 4: Pulse Polio Immunization Programme

UNIT – 1

HEALTHCARE DELIVERY SYSTEMS

CBSE STUDY MATERIAL 2019

Learning Outcomes

Unit 1 HEALTHCARE DELIVERY SYSTEMS				
Location Classroom/ Hospital/ Clinic.	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Understand healthcare delivery systems. 	<ul style="list-style-type: none"> Describe the different types of healthcare delivery system. Describe the role of Voluntary Health Sector. 	<ul style="list-style-type: none"> Identify different of healthcare delivery system followed in India. 	Interactive Lecture: <ul style="list-style-type: none"> Healthcare Delivery System. Activity: <ul style="list-style-type: none"> Visit a Hospital and Clinic and enlist all the services and the equipment used in the Hospital and Clinic.
	<ul style="list-style-type: none"> Identify the components and activities of hospital. 	<ul style="list-style-type: none"> State the function of a hospital in patient care. Enlist the services provided by the the hospital to patients. 	<ul style="list-style-type: none"> Identify the various components of a Hospital System. Identify the various equipment used in Hospital. 	Interactive Lecture: <ul style="list-style-type: none"> Role and Functions of Hospital. Activity: <ul style="list-style-type: none"> Visit a Hospital to to study the role and functions. Prepare report for the Student Portfolio.
	<ul style="list-style-type: none"> Understand role and functions of clinics. 	<ul style="list-style-type: none"> Describe the role and function of a clinic. Describe the preventative care provided at the Doctor's clinic. Prepare a chart for basic preventative care. 	<ul style="list-style-type: none"> Enlist the requirements for patient safety at Doctor's clinic. 	Interactive Lecture: <ul style="list-style-type: none"> Preventative care and Maintenance. Activity: <ul style="list-style-type: none"> Visit to two Clinic or Doctor's Office and observe the available preventative care being administered in those clinic and prepare a report highlighting the services provided in the two Clinics.

	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Describe the function of rehabilitation centre. 	<ul style="list-style-type: none"> Describe the role of rehabilitation facility in patient recovery. Differentiate between services provided at various Rehabilitation/ Convalescent Centre. 	<ul style="list-style-type: none"> Identify the facilities at the rehabilitation centre. 	Interactive Lecture: <ul style="list-style-type: none"> Role and Function of Rehabilitation Centre. Activity: <ul style="list-style-type: none"> Visit a doctor's office and clinic and enlist all the services and equipment.
	<ul style="list-style-type: none"> Describe the treatment and services provided at the Long Term Care Facilities. 	<ul style="list-style-type: none"> Describe the role of Long Term Care Facilities in patient care. Enlist the facilities/treatment provided by Long Term Care Facilities. 	<ul style="list-style-type: none"> Identify the equipment and materials that are used at Long Term Care Facility. 	Interactive Lecture: <ul style="list-style-type: none"> Long Term Care Facility. Activity: <ul style="list-style-type: none"> Visit to Old Day Care Facility/ Centre to study the services and materials used.
	<ul style="list-style-type: none"> Demonstrate the knowledge of Hospice Care. 	<ul style="list-style-type: none"> Describe the facilities available at Hospital/Home for Hospice Care. 	<ul style="list-style-type: none"> Assess the need for hospice in treatment of patients. Identify the facilities extended by the Hospital for Hospice Care. Identify the services provided as part of the Hospice Care. 	Interactive Lecture: <ul style="list-style-type: none"> Hospice Care. Activity: <ul style="list-style-type: none"> Visit a doctor's office/clinic in your neighborhood and enlist all the services provided there and the equipment required for Hospice Care.

Session 1: Describe Healthcare Delivery Systems

Relevant Knowledge

A number of factors, like food, housing, clothing, hygiene, sanitation, lifestyle, pollution, climate, etc. can influence the health of an individual and population. Healthcare includes all the services provided to a person / population by various agencies related to health and related services. Healthcare services are the services designed to fulfill health based needs of people / community / population, through various resources available.

The healthcare services should be comprehensive and should include promotive, preventive, curative and rehabilitative. These services are provided through a network of various primary, secondary and tertiary health care centres.

Healthcare Systems

The World Health Organization (WHO 2007) defines *health system* as follows: “A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example, a mother caring for a sick child at home; private providers; behaviour change programmes; vector-control campaigns; health insurance organizations; occupational health and safety legislation. It includes inter- sectoral action by health staff, for example, encouraging the ministry of education to promote female education, a well known determinant of better health.

Healthcare in India is delivered by institutions owned by state government, local bodies and the central government. However, health care delivery in India is a state subject. The center is mainly responsible for developing and monitoring national standards and regulations, linking the states with funding agencies, and sponsoring numerous schemes for effective implementation. The healthcare services in India are also provided by the private sector. The government and the private sector are thus helping in making healthcare accessible in all areas of India; both rural and urban.

The healthcare system is composed of different parts designed to work together to make healthcare accessible to everyone. It consists of hospitals, dispensaries, laboratories and health department for the common objective of maintaining good health for the community.

A number of **healthcare delivery models** have been developed for the delivery of healthcare services. **The healthcare system/models** in India can be categorized under the following sectors or programme:

1. Public Health Sector: It includes the following:

a) Primary Healthcare

- Village level **Accredited Social Health Activist (ASHA)**
- Village level ANM (**A**uxiliary **N**urse **M**idwife is a village-level female health worker in India who is known as the first contact person between the community and the health services).
- Sub centers.
- Primary Health Centre.

b) Hospitals/ Health Centers

- Community Health Centers.
- Rural Hospital.
- District Hospital/ Health Centers .
- Specialty Hospitals.
- Teaching Hospitals.

c) Other Agencies. Some examples are as follows

- Defence Services.
- Railways.
- ESI Hospitals.
- Municipal Hospitals.
- Public Sector Companies.

2. Private Sector: It Includes the following:

- Private Hospitals, Polyclinics, Nursing Homes and Dispensaries.
- General Practitioners and Clinics.
- Corporate and Superspeciality hospitals

3. Health Insurance Schemes

- Universal Health Insurance programmes.
- Employee State Insurance Scheme.
- Central Government Health Scheme.
- Various schemes of contributory third party payment mechanism, e.g., Yashaswini Scheme, Arogya Bhadratha Scheme, Ayushman Bharat Scheme etc.
- Employee Health Insurance Programme sponsored by employer and provided by General Insurance Companies.
- Health Insurance Programme (Mediclaime).

4. Indian Systems of Medicine and Homeopathy

- a) **Ayurveda** : "AYURVEDA" is made up of two words-Ayuh and Veda. Ayuh means life and Veda means knowledge or science. Thus "AYURVEDA" in totality means 'Science of life'. It incorporates all aspects of life whether physical, psychological, spiritual or social. What is beneficial and what is harmful to life, what is happy life and what is sorrowful life; all these four questions and life span allied issues are elaborately and emphatically discussed in Ayurveda..
- b) **Yoga**: Yoga is a discipline to improve or develop one's inherent power in a balanced manner. It offers the means to attain complete self-realization. The literal meaning of the Sanskrit word Yoga is 'Yoke'. Yoga can therefore be defined as a means of uniting the individual spirit with the universal spirit of God.
- c) **Unani** : As the name indicates, Unani system originated in Greece. The foundation of Unani system was laid by Hippocrates. The system owes its present form to the Arabs who not only saved much of the Greek literature by rendering it into Arabic but also enriched the medicine of their day with their own contributions. In this process they made extensive use of the science of Physics, Chemistry, Botany, Anatomy, Physiology, Pathology, Therapeutics and Surgery.
- d) **Homeopathy** : The word 'Homoeopathy' is derived from two Greek words, Homois meaning similar and pathos meaning suffering. Homoeopathy simply means treating diseases with remedies, prescribed in minute doses, which are capable of producing symptoms similar to the disease when taken by healthy people. It is based on the natural law of healing- "Similia Similibus Curantur" which means "likes are cured by likes". It was given a scientific basis by Dr. Samuel Hahnemann (1755-1843) in the early 19th century.
- e) **Naturopathy** : Naturopathy is an art and science of healthy living and a drugless system of healing based on well founded philosophy. It has its own concept of health and disease and also principle of treatment. Naturopathy is a very old science. We can find a number of references in our Vedas and other ancient texts. The morbid matter theory, concept of vital force and other concepts upon which Naturopathy is based are already available in old texts.
- f) **Sidha** : Siddha system is one of the oldest systems of medicine in India . The term Siddha means achievements and Siddhars were saintly persons who achieved results in medicine. Eighteen Siddhars were said to have contributed towards the development of this medical system. Siddha literature is in Tamil and it is practised largely in Tamil speaking part of India and abroad.

5. Voluntary Health Sector and Non-Government Organizations

The Voluntary Health Sector can be broadly classified as Follows:

- **Government Voluntary Organization**: These are voluntary organizations which play the role of implementing government programs like Family Planning and Integrated Child Development Services.
- **Healthcare for Special Groups of People**: This includes education, rehabilitation and care of the handicapped.
- **Health Researchers and Activists**: The efforts of these groups are usually directed towards writing occasional papers, organizing meetings on conceptual aspects of health care and critiquing government policy through their journals.
- **Health Work Sponsored by Rotary Clubs, Lions Clubs and Chambers of**

Commerce: They usually concentrate on eye camps – conducting cataract operations in the rural areas on a large scale with the help of various specialists, etc.

- **Integrated Development Programs:** In these programs, health is a part of integrated development activities. Consequently, their emphasis on health care may not be as systematic or as effective as that of the previous group.
- **Specialized Community Health Programs:** They include income generating schemes for the poorer communities so that they can meet their basic nutritional needs.

Model of healthcare system

A simplified model of healthcare system can be represented as below

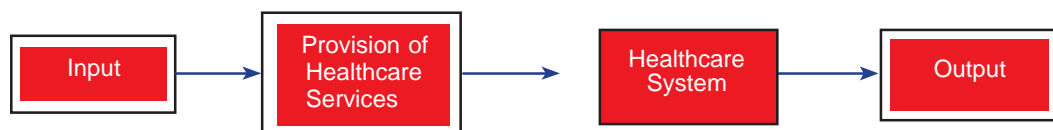


Figure: 1 Model of Healthcare System

I. Long Answer Questions

a) Describe various Healthcare delivery models.

1. Discuss the various health insurance schemes in the country

II. Short Answer questions:

1. Enumerate various Indian Systems of Medicine

III. Define healthcare system.

1. Who has primary responsibility to provide healthcare to the population in our country?

IV. Fill in the Blanks

1. The healthcare services should be promotive, _____ and rehabilitative.
2. Healthcare in India is delivered by institutions owned by government, and the government.
3. ASHA stands for

Session 2 : Components and Activities of Hospital

Relevant Knowledge

The term Hospital is derived from the Latin Word Hospes meaning host, which is the root word for English words like hotel, hostel and hospitality. The place where a guest is received is called hospitium or hospitale. Thus, taking it further a hospital is an institution for healthcare providing patient treatment with specialized medical and nursing staff and medical equipment. Hospitals are an important and integral part of our healthcare delivery system. Hospital is defined as an integral part of social and medical organization, the function of which is to provide for the population a complete healthcare. The outpatient services of the hospital reach out to the family and its home environment. The hospital is also a centre for the teaching, training and research. A hospital has various components that are integrated by common purpose of achieving a set of objectives.

CHART

Components of Hospitals:

The various components of the hospital includes:

1. Clinical such as Outpatient, Inpatient, emergency and ambulance services
2. Diagnostic Services such as laboratory, radiological, pathology etc.
3. Administrative including finance, security, etc.
4. Teaching, training and Research

The performance of all these services is dependent on the cooperation and coordination of various components within the system. The individual sub-systems have their independent goals for providing best patient care. It can be inferred that hospitals are highly complex, social, economic and scientific organization whose function is to

provide comprehensive healthcare.

Functions of Hospital

The purpose of healthcare services is to effectively meet the total health needs of community. The hospitals play a major role in maintaining and restoring the health of the community. The main functions of the hospitals can be listed as follows:

- Patient Care
- Preventive care
- Training and Research

The above functions can be further described as below:

1. Patient Care

The various patient care services in the hospital include:

- Diagnostic services: It includes the inpatient services involving medical, surgical and other specialties and specific diagnostic procedures.
- Curative services: It includes treatment of all ailments/diseases.
- Rehabilitative services: Those activities include physical, mental and social rehabilitation.
- Emergency Services: It includes emergency services required for dealing with accidents, natural disasters, epidemics, etc.

2 Preventive services

The hospitals also carry out various preventive functions which include the following:

- Supervision of pregnancies and childbirth
- Supervision of normal growth and development of children
- Control of communicable diseases
- Prevention of life style related disease like diabetes mellitus, hypertension, obesity etc.
- Provision of health education services
- Occupational health services
- Preventive health check up

3. Training and Research Services

The training activities of the hospitals generally refers to the training of medical, paramedical and other support staff (Clinical/Non-clinical) required and working in the facility. The training is generally provided to:

- Medical undergraduates
- Nurses and Midwives
- Specialists and post graduates
- Medical social workers
- Paramedical staff including technical staff

The research activities carried out by the hospitals are generally for the enhancement of medical technology and services in the following areas:

- Physical, psychological, spiritual and social aspects of health and diseases
- Clinical medicine
- Hospital practices and administration.

Exercise

1. Make a list of services provided by a Hospital.

I. Short Answer Questions

1. Define the following:

- a) Hospital.
2. State the functions of a hospital.
3. Describe the various components of a hospital system.

II. Fill in the Blanks

1. The word hospital is derived from latin word _____ which means _____.
2. The patient care services of a hospital include _____, _____, _____ and emergency services.
3. Hospitals provide both _____ and _____ care.

Part A

1. Define a hospital.
2. Discuss the various components of hospital system.
3. Enlist the various functions of a hospital

Part B

1. What is hospital?
2. Discuss the functions of a hospital.
3. Discuss the components of a hospital.

Part C

Session 3 : Describe Role and Functions of Clinic

Relevant Knowledge

The word clinic is derived from the Greek word klinein meaning to slope, lean or recline. Hence kline is a couch or bed, klinikos is sloping or reclining and Latin is clinicus. An early use of the word clinic was referred to the person 'one who receives baptism on a sick bed'.

A clinic is a healthcare facility that provides examination, consultation, prescription to outpatients including dispensing of medicines by a single / general practitioner/ specialist doctor /super-specialist doctor.

A polyclinic is a facility that provides examination, consultation, prescription to outpatients including dispensing of medicines by *more than* one doctor/ general practitioner/ specialist doctor /super-specialist doctor.

A few minor procedures like dressing and administering injections etc may be provided in the clinic/polyclinic however not requiring observation/short stay. Clinics can be privately operated or publicly managed and funded, and typically cover the primary healthcare needs of populations in local communities, in contrast to larger

hospitals which offer specialised treatments and admit inpatients for overnight stays.

Role and the Functions of a Clinic

The function of clinics will differ from place to place. For instance, a local general practice run by a single general practitioner will provide primary healthcare, and will usually be run as a for-profit business by the owner whereas a government specialist clinic may provide subsidised and specialised healthcare to the patients. They are advantageous to patients because they can provide immediate medical attention.

In these clinics, the injury or illness which are not serious enough may be managed.. However, they can provide initial treatment for serious injuries and then the person is referred to a higher facility Some of these clinics may have diagnostic equipment such as X- ray machines and other diagnostic facilities.

Types of Clinics

There are many different types of clinics providing outpatient services. Such clinics may be public (government funded) or private medical practices.

- A free clinic provides free or low-cost healthcare for it is generally provided by the State/ Central government and some other charitable organisations/ NGOs.
- A specialist clinic is a clinic providing advanced diagnostic or treatment services for specific diseases or parts of the body. This type of clinic contrasts with general out-patient clinics, which deal with general health conditions and disease categories. E.g. dental clinic, eye and ENT clinic, fertility clinic, etc.
- An ambulatory clinic offers outpatient guidance and counselling for various diseases and procedures that can be carried out in specialised hospitals or clinics.

Find out 5 various types of clinics in or near your locality and enlist the services provided by them .

Exercise

1. Visit a nearby Clinic and Hospital and enlist the services provided by them and compare their services. Based on this, identify the advantages of a clinic over hospital and prepare a report of what you have observed.

1. What is a clinic?
2. What is a polyclinic ?
3. Differentiate between a Hospital and a Clinic.

Fill in the Blanks

1. A clinic that provides advanced diagnostic or treatment services for specific diseases or parts of the body is called a_____.
2. In a polyclinic, many facilities such as _____, curative and preventative services are provided.
3. A clinic generally provides _____and _____ services to the outpatients.

Part A

1. Differentiate between a clinic and a hospital.
2. Discuss the role of a clinic .

Part B

Discussed in Class the Following:

1. What is clinic?
2. What are the role and functions of a clinic?
3. What are the different types of clinics?

Session 4 : Describe Rehabilitation Care Facilities

Relevant Knowledge

Rehabilitation is defined as "a set of measures that assist individuals, who have disability, to achieve and maintain optimum functioning. It enables people with limitations in functioning to remain in or return to their home or community, live independently, in work and normal life activities .

Rehabilitation facilities help in restoring a person back to normal life and to get a useful place in society. A rehabilitation center is a location in which rehabilitation can occur. People may experience an accident or illness that temporarily makes them unable to function normally; others may have an addiction that handicaps them. A rehabilitation center provides a support system to help restore people to their place in society.

Functions of a Rehabilitation Center

Rehabilitation centre provide the care needed when required, it includes:

- Medical support;
- A specialized care plan to help regain strength and independence and
- Guidance to the family and caregivers .

Depending on a persons need, a specialized care team of by doctors and nurses with support from professionals such as physiotherapists, occupational therapists, dietitians and social workers make rehabilitation plan.

The function of a rehabilitation center is to help in the recovery process.. Rehabilitation centers use a combination of therapy, exercises , small groups and/or individual sessions . The function of a rehabilitation center is to both increase the quality of life and to help the patient integrate back into the community. These Programs provides care to people who require specific medical and therapeutic services in a supportive environment.

Rehabilitation can be of various types like :

- 1. Physical Rehabilitation:** It focusses on the use of physical therapy for rehabilitation. Physical therapy or physiotherapy helps in promoting mobility, function, and quality of life. It focusses more on using physical exercises to help patients regain movement (motor) skills. Such therapy also helps to rehabilitate patients who have accident- related injuries or who have lost a limb, they also help rehabilitate those who have spinal, muscular or bone problems.
- 2. Occupational rehabilitation :**
This focusses on therapy for assessment and treatment to develop, recover, or maintain the daily living and work skills . . For example, an occupational therapist may work with a patient who has had a severe spinal cord injury and help regain the use of her arms or legs
- 3. Addiction Rehabilitation** assists a person to defeat alcohol and drug

addiction, eating disorders, gambling etc., so that he/she can get back on the right path and live a successful, happy and productive life.

4. **Psychosocial** rehabilitation (involving both psychological and social aspects) is the process of restoration of community functioning and well-being of an individual diagnosed with mental or emotional disorder. Psychosocial rehabilitation focus less on physical rehabilitation and more on the rehabilitation of the mind. Psychosocial rehabilitation ~~assists~~ in rehabilitation of psychiatric disorders such as major depression, bi-polar disorder, and schizophrenia. It works to help those suffering from psychiatric disorders stabilize themselves through therapy and medication.

Exercise

1. Rehabilitation center in a hospital and study the various practices adopted for providing rehabilitation to patients.
2. Based on your study devise a rehabilitation plan for a person who has lost his/her limb

I. Short Answer Questions

1. What is rehabilitation?
2. Which types of services are provided by a rehabilitation center?
3. List types of rehabilitation .
4. What is difference between psychosocial rehabilitation and physical rehabilitation?
5. What is Addiction Rehabilitation ?

II. Fill in the Blanks

1. Addiction rehabilitation treats people with addiction to _____ and _____.
2. Psychosocial rehabilitation helps those suffering from psychiatric disorders and stabilize them through and The motor skills of patient can be treated by providing them _____.

Use the following checklist to see if you have met all the requirements for assessment activity:

Part A

1. Differentiate between the role of clinic and a rehabilitation center.
2. Discuss the role of a rehabilitation center in community health.

Part B

Discussed in Class the Following:

1. What is a rehabilitation center?
2. Discuss the functions of a rehabilitation center.

Session 5 : Describe Long Term Care Facilities

Relevant Knowledge

Long Term Care refers to services which help meet both the medical and non-medical needs of people with a chronic illness or disability who cannot care for themselves for long period of time.

Generally, it provides the non-skilled care, such as assisting with normal daily tasks like dressing, bathing, and using the bathroom. Essentially, it involves providing a level of medical care that requires the expertise of skilled practitioners to address the often multiple chronic conditions associated with older populations. Long-term care can be provided at home, in assisted living facilities or in nursing homes. Long-term care may be needed by people of any age, although it is more commonly needed for senior citizens.

Definition

Long Term Care facility provides rehabilitative, restorative, and/or ongoing skilled nursing care to patients or residents who are in need of assistance with the activities of daily living. Long-term care facilities include nursing homes, rehabilitation facilities, inpatient behavioural health facilities, and long-term chronic care hospitals.

Need for Long Term Care

Life expectancy is going up in most countries, implying that more and more people are living longer and entering an age when they may need care in their daily activities.

This change is also being accompanied by changing social patterns, including nuclear families, different residential patterns and increased female labour participation in work force. These factors often contribute to an increased need for care.

In many countries, the largest percentages of older persons needing Long Term Care services still rely on informal home care, or services provided by unpaid caregivers such as Trusts, societies and some NGOs.

Types of Long Term Care

Long-term care can be provided formally or informally. Facilities that offer these formal services typically provide living accommodation for people who require on site delivery of around-the-clock supervised care, including professional health services, personal care and services such as meals and housekeeping. These facilities may be called as nursing home, personal care facility, residential continuing care facility, etc. Long-

term care provided formally in the home, also known as home healthcare. These services are usually done as advised by a physician or other professional. Informal long-term home care is care and support provided by family members, friends and

other unpaid volunteers.

Discuss and Debate

In India, most of the elderly receive care at home? What according to you is better option for caring for elderly? formal care in an assisted living home for elderlies OR care at home (non-formal care) provided by family members?

Exercise

1. Observe how elderly persons in your family is being cared for?
2. Suggest at least five ideas that will enhance the quality of care for elderly at your home.
1. In today's Indian society, why do we need long term care?
2. Which services are provided at a Long Term Care facility?
3. What is non-formal long term care? Which type of care is seen in India – formal or non- formal?

Part A

1. Define Long Term Care facility.
2. Differentiate between the role played by Long Term Care facility and a rehabilitation center.
3. Enlist and elaborate various types of services offered at Long Term Carecenter.
4. Discuss the role of a long term care facility in community health.

Part B

1. What is Long Term Care?
2. Discuss the services provided at the Long Term Care facilities.

Session 6 : Hospice Care

Relevant Knowledge

Hospice care is a type and philosophy of care that focuses on the relieving and preventing the suffering of a terminally ill or seriously ill patient's pain and symptoms, and attending to their emotional needs.

The focus of hospice care is on palliation of the patient's pain and symptoms. These symptoms may be physical, emotional, or psychosocial in nature. Hospice care focuses on bringing comfort, self-respect, and peace to people in the final time of life. Patients' symptoms and pain are controlled, goals of care are discussed and emotional needs are supported. Hospice believes that the end of life is not a medical experience; it is a human experience that benefits from expert medical and holistic support that hospice offers.

Hospice care focuses on quality rather than length of life. It provides humane and compassionate care for people in the last phases of incurable disease so that they may live as fully and comfortably as possible. Hospice care treats the person rather than the disease, working to manage symptoms so that a person's last days may be spent with dignity and quality, surrounded by their loved ones. It's also family-centered it includes the patient and the family in making decisions.

Hospice care is used when you can no longer be helped by curative treatment, and you are expected to live about 6 months or less if the illness runs its usual course. Hospice gives you supportive or palliative care, which is treatment to help relieve disease-related symptoms, but not cure the disease. Its main purpose is to improve your quality of life.

Ministry of Health and Family Welfare, Govt. of India is also implementing the National Programme for Palliative Care.

Places where Hospice Care is Provided

Hospice care is generally, designed to be available 24 hours a day, 7 days a week. It can be given at the patient's home, a hospital, nursing home, or private hospice facility. The doctor, guidance counselor helps in deciding which program is best for the patient and the family. Hospice can be provided at:

1. Home Hospice Care

Most home health agencies and independently owned hospice programs, offer home hospice services. A nurse, doctor, and other professional staff monitor the home hospice program but the main caregiver is usually a family member or friend who is responsible for around-the-clock supervision of the patient. This person is with the patient most of the time and is trained by the nurse to provide much of the hands-on care.

Members of the hospice staff will visit regularly to check on the person, his/ her family, and caregivers to give needed guidance and services.

Care begins when a patient is admitted to the hospice program, which generally means that a hospice team member visits your home to learn about you and your needs. Return visits are scheduled so that the patient's needs are re-evaluated regularly. To provide further support on call nurse and counselors are available throughout the day.

2. Hospital Based Hospices

Hospitals that treat seriously ill patients often have a hospice program. This allows patients and their families easy access to support services and healthcare professionals. Very few hospitals have a special hospice unit, while others use a hospice team of caregivers who visit patients with advanced disease on any nursing unit.

Support Facilities Extended by Hospice Care

Various types of services are provided by the hospice care team, depending upon the need of the patient and the family. The following are the main services extended by the hospice care:

a) Pain Control

The goal of pain control is to help patient to be comfortable while allowing staying in control and enjoying life. This means that patient is free of pain as much as possible and alert enough to enjoy the people around him/ her and make important decisions.

b) Home Care and Inpatient Care

Although hospice care can be provided at home, a patient may be admitted to a hospital, extended-care facility, or a hospice inpatient facility. The patient can go back to in-home care when he and his family are ready.

c) Family Conferences

Regularly scheduled family conferences, often led by the hospice nurse or social worker, keep family members informed about the condition of the patient.

d) Bereavement Care

Bereavement is the time of mourning after a loss. The hospice care team works with surviving loved ones to help them through the grieving process. A trained volunteer or professional counselor provides support to survivors through visits, phone calls, and/or other contact, as well as through support groups. The hospice team can refer family members and care giving friends to other medical or professional care, if needed.

Exercise

1. What is philosophy behind hospice?
2. Where can hospice care be provided?
3. How does hospice care help the patient and his family?

Part A

1. Differentiate between long term care facility and hospice.

2. Enlist and elaborate various types of services offered by hospice care.
3. Discuss the role of a hospice care for terminally ill patient.

Part B

Discussed in class the following:

1. What is hospice?
2. Services provided by the hospice care.
3. Discuss the types of hospice care extended to the patients and their family.

CBSE STUDY MATERIAL 2019

UNIT – 2

Role of Patient Care Assistant

Learning Outcomes

Unit 2 Role of Patient Care Assistant				
Location Classroom/ Hospital/ Clinic.	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Identify the role and functions of Patient Care Assistant. 	<ul style="list-style-type: none"> Describe the essential duties and responsibilities of Patient Care Assistant. 	<ul style="list-style-type: none"> Demonstrate the knowledge of maintaining patient safety. 	Interactive Lecture: <ul style="list-style-type: none"> Role and Function of Patient Care Assistant. Activity: <ul style="list-style-type: none"> Volunteer at Primary Health Centre, Nursing Home and Community Health Centre.
	<ul style="list-style-type: none"> Prepare a Daily Care Plan of Patient. 	<ul style="list-style-type: none"> Describe various activities of patient's daily care routine including bathing, feeding, excreta disposal, transfer of patients medication etc. 	<ul style="list-style-type: none"> Prepare a daily care plan for patients. 	Interactive Lecture: <ul style="list-style-type: none"> Daily Care Plan of Patients. Activity: <ul style="list-style-type: none"> Role play Provide different situations to the students and then tell them to Identify and apply the most suitable safety practice that should be followed in that given situation.
	<ul style="list-style-type: none"> Identify basic components required for Patient Comfort. 	<ul style="list-style-type: none"> Describe basic components required for patients comfort. 	<ul style="list-style-type: none"> Identify and list various elements that can help in providing comfort to patients. 	Interactive Lecture: <ul style="list-style-type: none"> Daily Care Plan of Patients. Activity: <ul style="list-style-type: none"> Role Play Provide different situations to the students and then tell them to Identify and apply the most suitable safety practice that should be followed in that given situation.

CBSE STUDY MATERIAL 2019

Location	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> ● Understand Patient's Safety. 	<ul style="list-style-type: none"> ● Describe the various elements of patient's safety. 	<ul style="list-style-type: none"> ● Identify patient's environment and its components. 	Interactive Lecture: <ul style="list-style-type: none"> ● Facility for Patients and Safety aspects in Hospital. Activity: <ul style="list-style-type: none"> ● Visit to a Hospital to study the environment and safety of patients.
	<ul style="list-style-type: none"> ● Provide for the patient's daily care. 	<ul style="list-style-type: none"> ● Report any evident changes and appearance. ● Provide care needed by the patient. 	<ul style="list-style-type: none"> ● Prepare patient checklist and compare with standard measurement. ● Demonstrate care needed by the patient. 	Interactive Lecture: <ul style="list-style-type: none"> ● Care of Patients. Activity: <ul style="list-style-type: none"> ● Preparation of check list for health parameters as per their understanding and tell them to compare with standard check list. Discussion: <ul style="list-style-type: none"> ● Ethical practices in Hospitals.
	<ul style="list-style-type: none"> ● Identify the qualities of a good Patient Care Assistant. 	<ul style="list-style-type: none"> ● Describe the good qualities of Patient Care Assistant. 	<ul style="list-style-type: none"> ● List the do's and don'ts in health care setup. ● Demonstrate the knowledge of medical ethics. 	
	<ul style="list-style-type: none"> ● Identify biomedical wastes and disposal procedure. 	<ul style="list-style-type: none"> ● Describe the characteristics of various types of biomedical wastes. 	<ul style="list-style-type: none"> ● Demonstrate the knowledge of biomedical wastes. ● Identify the color code for disposal of biomedical waste. 	Interactive Lecture: <ul style="list-style-type: none"> ● Biomedical Waste. Activity: <ul style="list-style-type: none"> ● Visit to Hospital to study biomedical waste management.

Session 1: Describe the Role of Patient Care Assistant

Relevant Knowledge

Patient Care Assistants (PCA) provides nursing, supportive and technical care to patients under the supervision of nurses and doctors in a hospital or nursing care facility. PCA might spend more time with patients than other healthcare providers in a hospital. PCAs must be empathetic, possess good communication and nursing skills to care for patients.

Essential Duties and Responsibilities

The Essential Duties of a PCA include the following:

1. ***Assist professional healthcare staff with performing physical examinations and procedures, which may include measuring and recording vital signs and measurement of input and output.***
 - a) Patient data, such as vital signs and measurement of intake and output are taken and recorded according to the policy and procedure of the Hospital.
 - b) Changes and abnormal findings in patient's data are communicated to the registered nurse and other members of the healthcare team in a timely manner.
 - c) Patient is assisted with personal hygiene.
 - d) Patient is given assistance with ADLs (Activities of Daily Living), exercise and ambulation as directed by therapists and other members of the healthcare team.
 - e) Personal care and patient related services are provided in the patient's home as needed per guidelines set forth by the Home Health Agency.
2. ***Maintain Patient Safety***
 - a) Patient's environment including but not limited to the patient's room, examination room or treatment area is kept neat and clean.
 - b) Meal preparation and light housekeeping duties may be necessary in the home setting to maintain a safe environment.
 - c) Equipment maintenance and safety checks are completed according to policy and procedure of the concerned hospital.
 - d) Incidents are reported promptly to appropriate parties using the Health System's quality reporting process.
3. ***Perform administrative Support Functions***
 - a) Medical record duties, including file maintenance and recordkeeping, are completed when necessary.
 - b) Supply inventory and ordering are completed according to guidelines.
 - c) Duties, including scheduling diagnostic procedures, meeting and greeting patients, or delivering specific supplies and pharmaceuticals are performed efficiently.
4. ***Maintain Necessary Skills and Competencies***
 - a) Competency in the use of new equipment (i.e., lifting and moving patients) is achieved and maintained.
 - b) Strengths and opportunities for professional development are identified and goals for self-improvement are set and documented appropriately.
 - c) Identified goals for professional development are met through a variety of educational programmes.

- d) The education and development of others is fostered by sharing information learned through individual professional development.
- e) A positive environment conducive to professional development of co-workers is demonstrated on an ongoing basis, including but not limited to teaching, orienting, role modeling and team participation.
- f) Annual mandatory training activities and regulatory in-service hours requirements are completed within established time frames.

Organizational Duties

1. *Communicates appropriately using good interpersonal skills*

- a) Positive and professional manner is projected through verbal and non-verbal communication.
- b) Information for patients and staff is delivered in a manner that is supportive, timely and understandable.
- c) Interpersonal conflicts are resolved using appropriate methods and organizational resources.
- d) Diverse perspectives are acknowledged; language and behaviours are modeled that build inclusiveness in the work environment.
- e) Ideas and suggestions are clearly communicated.
- f) Clarification of communication is requested when appropriate.

2. *Serves, manages and supports patient and staff members*

- a) Privacy is maintained at all times for patient and employee information.
- b) Actions are initiated to meet or exceed customer/co-workers expectations in delivering service by implementing the “I Make the Difference” philosophy (ownership begins with me; greet customers by making eye contact and smiling; provide positive, professional and prompt responses, e.g., helping visitors find their way; close every interaction with “Is there anything else I can do for you?”).
- c) Appropriate resources throughout the organization are coordinated to meet patient and other health care staff needs.
- d) Relationships with staff in other work areas are fostered to meet internal and external needs of the patient.
- e) Positive working relationships with peers, management and customers are maintained at all times.
- f) Organizational mission and values of respect, integrity, stewardship and excellence are evident in behaviour.

3. *Participates in performance improvement activities*

- a) Participation in performance improvement activities and initiatives is on-going.
- b) Initiative is demonstrated to proactively diagnose and resolve problems.
- c) Change is met with positive and supportive behaviour.

4. *Participates as a team member and is accountable for own work responsibilities*

- a) Time off is scheduled to avoid disrupting workflow.
- b) Help is offered to others to solve problems and complete tasks to facilitate communication and positive team dynamics.
- c) Productive work habits are consistently displayed.
- d) Accountability for actions and decisions is demonstrated in daily work.
- e) Feedback is solicited and accepted in a positive manner.
- f) Constructive input is offered to support the work unit.

Exercise

1. Prepare a presentation on the role and functions of Patient Care Assistant in a Hospital.

I. Short Answer Questions

What are the role and functions of a Patient Care Assistant?

Part A

1. Describe the role of Patient Care Assistant.

Part B

Discuss in class the following:

1. What are the roles and responsibilities of Patient Care Assistant?

Session 2 : Identify Various Activities of Patient's Daily Care

Relevant Knowledge

Activities of Daily Living (ADLs) is a term used in healthcare to refer to daily self-care activities within an individual's place of residence, in outdoor environments, or both. Health professionals routinely refer to the ability or inability to perform ADLs as a measurement of the functional status of a person, particularly in regards to people with disabilities and the elderly. Younger children often require help from adults to perform ADLs, as they have not yet developed the skills necessary to perform them independently.

ADLs are defined as "the things we normally do such as feeding ourselves, bathing, dressing, grooming, work, homemaking, and leisure" etc. While basic categories of ADLs have been suggested, what specifically constitutes a particular ADL in a particular environment for a particular person may vary.

Patient Care Assistance in the Hospital

Patients need help with various activities because they may not remember or they may not be able to perform due to medical/surgical condition including physical inability in that particular situation. Also, at times, patient may not be in condition to perform the daily activities such as after surgery, when on ventilator etc. Also, they may not be able to understand instructions when someone tries to help them. So PCA needs to perform or assist these activities for the patient:

- Bathing and showering (washing the body).
- Bowel and bladder management (recognizing the need to relieve oneself).
- Dressing.
- Eating (including chewing and swallowing).
- Feeding (setting up food and bringing it to the mouth).
- Functional mobility (moving from one place to another while performing activities).
- Personal device care.
- Personal hygiene and grooming (including washing hair).
- Toilet hygiene (completing the act of relieving oneself).

Daily Care Plan of Patients

To a patient, every task could be a source of stress if it seems beyond their ability. On an average day, therefore, is a series of stressful tasks, and it is no wonder they get frustrated and tired.

One very helpful way of reducing their stress is establishing a regular routine for the day doing the same things at the same time every day. This routine can be fine-tuned to ensure that the patient seems comfortable with it. Necessary tasks are all fitted into this routine so that the patient's day is regular and predictable, and the patient can get used to it.

They need less effort to get through the day as they sort of know what to expect. They get a greater sense of comfort, and also feel more in control of their lives. The daily routine should only be disrupted if it is very necessary.

In addition to a daily routine, the environment around the patient needs to be relaxed and friendly. Also, the patient should have access to whatever is needed to perform activities easily. There should be enough things to keep the patient oriented about where he/ she is, and what the time is. Also, depending on the patient's likes and dislikes, various other means of keeping the patient comfortable and relaxed should be adopted. This could include pictures of happy days, or incense, or music, if these are helpful to the patient.

Often, caregivers do not spend enough time making the environment comfortable because they are already having enough work and problems handling care. But even a few appropriate adjustments to the home can drastically improve the patient's emotional state, and consequently, the patient's ability to understand and do things. All of us work better when we are relaxed and happy and surrounded by things we like. So do the patients. So PCAs can coordinate among all persons involved in patient care.

When thinking of how to do something, we shouldn't think only of how to get the task accomplished, but also whether we can make it more pleasant for ourselves and the patient. That will change the activity from a chore to something we may enjoy.

Key Messages for PCAs in Patient Assistance

These are some of the tips that you can use for specific activities in healthcare:

Bathing

- Patients often misjudge the temperature of the water, and may end up bathing with very hot or very cold water if not helped.
- A bathroom can be very unsafe for a patient if left alone, so stay with the patient. Patients may feel embarrassed or angry at the presence of a caregiver. Handing them the soap and then turning the face away may give them back their sense of privacy.
- A bath stool may be needed so that the patient sits down comfortably for the bath. Grab rails near the bath stool may also be needed.
- Be careful to dry folds in the body. Also dry areas like between the toes.
- If bathing is tiring and difficult, reduce frequency to what is indicated by the weather and the needs of personal hygiene. Or give partial baths. A daily full bath may not be needed.
- Use the bath time to check the patient for injuries and sores.

Dental Care

- You may need to help the patient brush properly.
- Denture cleaning will probably have to be done by the caregiver.
- You may also, in later stages, have to assist the patient put in and remove the dentures; dentures should fit well, or the patient will get sores in the mouth.

Grooming

- Patients may cut themselves while shaving with an ordinary razor, and therefore switch to twin blade or electric razors. Caregivers may need to take this activity after sometime.
- Combing hair is another activity the caregiver may need to take over.
- Nail cutting and filing require fine coordination, and will need to be taken over.
- Even if the patients are unable to use face creams and groom themselves, they like to look neat and presentable, and the caregiver needs to take over these tasks as the patient's inability makes them too difficult to be done independently.

Dressing

- Too many clothes in the wardrobe may be confusing for the patient. Reduce the choices by removing extra clothes. Retain only a few comfortable, loose clothes.
- Clothing may need to be simplified as coordination reduces.
- When laying out the clothes for the patient to wear, lay them out in the sequence in which they have to be worn.
- Make sure clothes are not too long, so that patients do not trip.
- Switch to clothes without zippers or elaborate buttoning.

- Instead of pajamas/ salwars with strings, use them with elastic or nightgown so that they can be just pulled on or taken off.
- Use shoes with velcro straps instead of shoes with laces.

Toileting

- Incontinence occurs for many reasons, some of which are that the patient is not able to reach the bathroom in time, or forgets where the bathroom is. Use signage to point the way, have nightlights, have grab rails that the patient can use while reaching the bathroom, and have clothing that can be taken off easily.
- Timed visits to the bathroom often reduce accidents.
- Watch out for signs of constipation and dehydration (note colour of urine) and change diet and water intake accordingly.
- If the patient shows signs of pain while urine passing urine or during bowel movements, consult with the doctor.
- Be ready for accidents, and set up the house for quick cleaning after such accidents.
- Persons who have been used to different styles of toilets in their childhood may forget what a commode is for, and may need to be reminded.
- Grab rails or toilet seats with rails may make the experience of sitting on the toilet seat less frightening for the patient.
- Watch the patient to ensure proper wiping, and proper washing of hands.
- For visits outside, diapers may be a good option. Even patients, who could be tense about finding a suitable bathroom outside, may easily agree to using diapers for outside visits (such as to the doctor). Patients will need assistance in wearing and removing diapers.

Eating

- Patients may forget to eat if family members have gone out and left the food on the table for them. Someone may need to ensure that the patients eat.
- Eating becomes messier over time, and patients who used to use a spoon may switch to eating with hand. They may have problems handling larger pieces, and food may need to be cut down in smaller sizes they can handle.
- Patients may not mix food while eating. They may eat all the daal / sambar first, and the curds, and then try to eat the rice without anything mixed. They may finish off the vegetable or curry, and then be left with the roti and nothing to eat with it. They may even eat the pickles separately. This is because they find it a problem to handle multiple items.
- Caregivers may need to mix food and give it to them, or to make combined dishes like pulao, khichdi, bisi bele bath, and curd rice.
- Denture fitment becomes bad. The patient may lose more teeth, but not be mobile or alert enough to get a new denture.
- Chewing becomes a problem over time, and food may need to be made softer, and finally, liquidized in a Mixer.
- Consult doctors about diet supplements like calcium and vitamins, and also find out whether the patient needs to take a serving of balanced diet.

Drinking Water

- Sometimes, patients, in order to avoid repeated trips to the bathroom, reduce their water intake.
- They may also forget to drink water.

- Caregivers need to make sure that patients are drinking enough water.
- Doctors may also ask patients to include electrolyte drinks in the daily routine, if the patient is showing an electrolyte imbalance.

Taking Medication

In the beginning, patients may find it problematic to keep track of their medicines. Using small labeled boxes for the medicines can help.

Soon, however, more care needs to be taken to ensure that patients continue taking their medicines as prescribed. Forgetting to take medication is a common problem. Patients cannot be depended on to take their medication as required. They may forget to do so. Even if reminded, they may not believe they need to take the medication (they may say things like, but I don't have high blood pressure). If caregivers insist, patients sometimes hide the medicine away under the mattress or pretend to swallow it and then spit it out. It is good to be alert on this, and if necessary, supervise the patient to ensure that the medicines are taken as prescribed. In later stages, as swallowing becomes difficult, doctors should be asked to switch prescriptions to medicines that can be crushed and given or can be substituted by syrups.

Physical Exercise

1. Some amount of daily physical exercise is desirable. Walking is a good exercise. Over time, patients become unsteady, and grab rails may need to be installed at strategic places.
2. Range of motion exercises will keep the patient flexible and mobile longer.

Exercise

- 1 Prepare a daily care plan for patients.

Short Answer Questions:

1. List any five daily activities of a patient.

Checklist for Assessment Activity

Use the following checklist to see if you have met all the requirements for assessment activity:

Part A

1. Differentiate between the various activities performed by the patients.
2. Differentiate between the various needs of patient.

Part B

Discuss in class the following:

1. What are the daily activities of a Patient Care Assistant?
2. What are the daily needs of a patient?

Session 3: Describe Basic Requirements for Patient Comfort

Relevant Knowledge

Besides being aesthetically pleasing, the human environment must provide light, air, and thermal comfort. In addition, proper acoustics and hygiene are important. Comfort is best defined as the absence of discomfort. People feel uncomfortable when the environment is too hot or too cold, or when the air is odorous and stale. Positive comfort conditions are those that do not distract by causing unpleasant sensations of temperature, drafts, humidity, or other aspects of the environment. Ideally, in a properly conditioned space, people should not be aware of equipment noise, heat, or air motion. The feeling of comfort or discomfort is based on a network of sense organs: the eyes, ears, nose, tactile sensors, heat sensors, and brain. Thermal comfort is that state of mind that is satisfied with the thermal environment; it is thus the condition of minimal stimulation of the skin's heat sensors and of the heat-sensing portion of the brain.

Environmental aspects of patient comfort:

The environmental conditions conducive to thermal comfort are not absolute, but rather vary with the individual's metabolism, the nature of the activity engaged in, and the body's ability to adjust to a wider or narrower range of ambient. For comfort and efficiency, the human body requires a fairly narrow range of environmental conditions compared with the full scope of those found in nature. The factors that affect humans pleasantly or adversely include:

1. Temperature of the surrounding air
2. Radiant temperatures of the surrounding surfaces
3. Humidity of the air
4. Air motion
5. Odours
6. Dust
7. Aesthetics
8. Acoustics
9. Lighting
10. Room hygiene
11. Sound
12. Bed comfort
13. Patient's hygiene

These aspects have already been discussed in previous sections. PCA needs to coordinate with nurses for providing these environmental conditions for his/her comfort. It needs to be remembered that while providing such care, associated medical or surgical conditions also need to be taken care. Certain aspects like temperature of surrounding environment need to be adjusted as per patient needs in view of medical condition.

Exercise

1. List various elements that can help in providing comfort to patients.
2. Prepare patient check list and compare with standard measurements.
3. Demonstrate care needed by the patient.

I Short Answer Questions:

Write a short note on the requirements of a patient with respect to the following:

1. Temperature
2. Aesthetics
3. Bed comfort
4. Diet

Part A

1. Differentiate between the various comfort requirements of a patient.

Part B

Discussed in class the following:

1. What are the various elements that need to be considered for providing comfort to the patient?

Session 4: Describe Various Aspects of Patient's Safety

Relevant Knowledge

The environment of a patient is vital to assist in the recovery process. As such, the environment must be maintained so that it contributes to and not be a detriment to healing. The patient's environment consists of the setting around him, equipment, furniture, as well as people. The patient's environment should have the following characteristics:

1. The environment should be conducive to rest.
2. The environment should be well lighted to ensure safety.
3. The environment should be free from noise and extraneous activity.
4. The environment should be well ventilated.
5. The environment should be predictable.

Environment Conducive to Taking Proper Rest

When a person is sick, he/she requires rest among other things as part of his/her therapy. It should allow the patient to regain his/her resources so that he restores his/her health. Many factors should be considered to make this possible, such as scheduling procedures promptly. In addition, assisting the patient in their activities of daily living should be as close to the personal routines the patient has at home. For example, some patients prefer to have their baths in the morning, while others prefer them in the evening. Schedule for visitors should be adhered to so that the patient can focus on physical rest.

Well-lighted Rooms

Since many elderly individuals are usually hospitalized, their needs must be kept in mind. Accidents may be prevented when corridors and rooms have good lighting. Good lighting includes the avoidance of glares which can distract the patient's vision. The light should also be adjusted to have sufficient rest and sleep as well. There should not be unnecessary light exposure during sleep times and at night. This too helps in maintaining sleep-wake cycle.

Free from noise and Extraneous activity

Noise pollutes the environment and is considered as pollution for humans. If a hospital environment is noisy, it detracts from the healing that rest provides. Personnel should control their voices when talking and avoid the use of telephones and other personal electronic equipment in patient care areas. Trolleys, carts, stretchers, and wheelchairs should not be noisy so as to distract the patient.

Well Ventilated Rooms

Maintaining good ventilation can be achieved in air-conditioned as well as non-air-conditioned rooms. The Patient Care Assistant should ensure that good ventilation is achieved by not allowing crowds of people to visit at the same time, as well as to maintain a good air circulation by opening or closing windows or doors as needed. In cases of air – conditioning, the ventilation and cooling needs to be appropriately adjusted. The filters used during ventilation needs to be cleaned and timely replaced.

Making Environment Familiar

As part of the admission procedure, patients and their families are oriented to the room. Since patients are in unfamiliar surroundings, consistency in the placement of personal effects, equipment and furniture should be maintained. They should know where the urinal or bedpan is or where they can obtain water and their personal effects. The patient care assistant should always return these equipment or furniture to their original placements so as not to confuse the patient. In addition, routines should be followed closely as much as possible, such as the schedule for meals, as well as visitation.

Patient Environment and Its Components

1. Typical Equipment / Accessories in the Patient's Room include the following:

- Bedside table
- Overhead table

Sink
 Bed
 Mattress
 Intravenous (IV) pole
 Soap dispenser
 Glove container
 Sharps and needle trash
 Bin for different biomedical waste

2. Supplies in the Patient's room include the following:

Bed sheets
 Soap
 Towels

Nursery Unit / Ward

A nursery unit / ward typically comprise the following:

Nursing station
 Medication room
 Examining room
 Treatment room
 Procedure room
 Clean utility room
 Dirty utility room
 Kitchen

Traffic Patterns in Patient Rooms and Hallways

Another aspect of creating a safe environment in the hospital is adhering to traffic patterns. It includes the following:

1. Elevators used for transporting carts, drugs and equipment should not be accessible to non-hospital personnel;
2. Delivery carts should never be left unattended in hallways. They should always be parked away from access pathways, as well as away from patient rooms;
3. Walk following the rules of street traffic. Keep left;
4. Use the stairways instead of the elevator when going up one floor or when going down two floors.
5. Ensure that hallway hazards, such as a wet floor, are marked with appropriate warning signs or notices.
6. Signages for exit and emergency exit should be appropriately placed.

Proper Functioning of Equipment and Patient Room accessories

Equipment and accessories in patient rooms are designed to either contribute to the therapeutic regimen of a patient or to assist the patient in maintaining activities of daily living. As such, equipment and accessories should be functional at all times. It should be part of the ward activity for personnel to check these at regular intervals as part of a preventive maintenance program. Rooms should be checked before a patient is admitted to make sure that equipment are in working order. Defective equipment should be tagged and sent to the appropriate department for repair. In addition, all equipment should have a regular schedule of being calibrated, tested, and updated as recommended by the manufacturer. Remember that prevention is better than repair. Do not wait for an equipment to fail while it is used on a patient.

Exercise

1. Visit a private and a government - run hospital and observe their set - up of patient rooms. What are the similarities / differences?
2. Debate: Visitors should be allowed to visit patient anytime.
3. Make a list of what you would like to have in your room if you were sick and compare them to those that you observed in a patient's room during your hospital visit. Discuss why hospitals should include the item in your wish-list?
- I. Short Answer Questions
 1. List five characteristics of a safe patient environment.
 2. List two measures to make the patient environment predictable.
 3. List five lines rules to ensure patient safety related to traffic patterns and flow.

II. Fill in the Blanks

1. The patient's environment consists of _____ , , furniture, as well as _____ .
2. Since patients are in unfamiliar surroundings, _____ in the placement of personal effects, equipment and furniture should be maintained.
3. If a hospital environment is _____ it detracts from the healing that rest provides.
4. _____ is better than repair.

Part A

1. Differentiate between the various components of patient's environment.

Part B

Discuss in class the following:

1. Why is it important to provide a well lighted environment in the patient's room?
2. Why entry of visitor's should be controlled?
3. Why patient's room should be well-ventilated?

Session 5 : Describe Qualities of a Good Patient Care Assistant

Relevant Knowledge

Patient Care Assistant (PCA) or General Duty Assistant (GDA) works in a range of healthcare settings and makes a valuable contribution in all areas of healthcare. They work under the supervision of nurse in the hospital. As per to the institutional guideline, the PCA has to have a good code of ethical conduct.

Medical Ethics

Some of the important medical ethics they should follow which are listed below as per Indian Medical standards:

1. **Informed Consent:** Tell the truth and make sure that the patient understands it properly when they are obtaining the patient's consent to a procedure or treatment.
2. **Confidentiality:** The PCA should consider the details about his patients as purely personal between him and the patient. Except for professional reasons the details should not be discussed with others or in public.
3. **Communication:** Clear communication between the PCA and the patient is very important for successful treatment. Any doubt that the patient has should be dealt with care and cleared at once in simple language which he/she understands.
4. **Control:** It is the ability to purposefully direct or change.
5. **Cultural Concerns:** To be sensitive to the cultural practices of the patient/patient in any given circumstance.
6. **Communication with Family Members of the Patient:** The PCA should understand the anxiety of the relatives of the patients and make them aware of the medical condition of the patient.
7. **Business Related Issues:** Healthcare providers should not entertain unethical practices in the hospital.
8. **Telling the truth about illness, about medication, and side effects of medicines:** Telling the truth implies respect for autonomy - if a patient is lied to, they cannot make a reasoned and informed choice, because they do not have the information they need to do so.
9. **Follow the Guidelines of the Hospital:** The PCA should strictly follow the guidelines for hygiene, patient care, etc as per hospital protocols and policies.. This helps prevent hospital induced infections.
10. **Accountability:** As a professional, the PCA is personally accountable for actions and omissions in his/her practice and must always be able to justify his/ her decisions. He/she must always act lawfully, whether those laws relate to the professional practice or personal actions.

PCA and GDA should understand that the above mentioned concerns should be as per hospital policy. Also, the disease related issues needs to be informed as per doctors and nursing instructions. In cases of any confusion, PCA should discuss with doctors or nurses before informing the patient.

Qualities of a Patient Care Assistant

1. Empathy

To be able to identify with and understand another person's feelings, situation and motives;

Must have a sincere interest in working with people;

Must care about others and be able to communicate and work with them;

Understand needs and learn effective communications is one way to develop empathy.

2. Honesty

- Truthfulness and integrity;
- Others must be able to trust at all times;
- Must be willing to admit mistakes so that they can be corrected.

3. Dependability

- Must accept the responsibility that your position requires;
- Must be prompt in reporting to work and maintain good attendance record; Must perform assigned tasks accurately and on time.

4. Willingness to Learn

- occur because of research, new inventions and many other factors;
- Changes can mean learning new techniques or procedures;
- At times, additional education may be required to remain competent.

5. Patience

- Must be tolerant and understanding;
- Must learn to control your temper and "count to ten";
- Learn to deal with frustration and overcome obstacles.

6. Acceptance of Criticism

- Must be willing to accept criticism and learn from it;
- Patients, employers, co-workers and others may criticize you;
- Some criticism will be constructive and allow you to improve your work.

7. Enthusiasm

- Must enjoy work and display a positive attitude;
- Enthusiasm is contagious;
- Helps you do your best;
- Encourages others to do the same;
- Concentrate on positive points and negative points will not seem to be quite so important.

8. Self-Motivation

- Ability to begin or to follow through with a task;

- Should be able to determine things that need to be done and do them without constant direction.

9. Tact

- Ability to say or do the kindest or most fitting thing in a difficult situation;
- All individuals have a right to their own feelings and these feelings should not be judged as right or wrong;
- Shows consideration of the feelings of others; Requires constant practice.

10. Competence

- Qualified and capable of performing a task;
- Follow instructions;
- Use approved procedures;
- Strive for accuracy in all you do;
- Know your limits and ask for help or guidance if necessary.

11. Responsibility

- Being willing to be held accountable for your actions;
- Others can rely on you and know, you will meet your obligations.

12. Discretion

- In any health care career you have access to confidential information;
- Information should not be told to anyone without proper authorization;
- Patient is entitled to confidential care;
- Be discrete and make sure patient's rights are not violated.

13. Team Player

- Learn to work well with others;
- Each member of a health care team will have different responsibilities, but each member must do his or her part to provide the patient with quality care;
- By working together, a team can accomplish goals much faster than an individual.

14. Personal Appearance

- Important to present a healthy appearance and a health hygiene that inspires confidence and a positive self-image;
- Should wear uniform as per to the place of employment;
- Wear the name badge with a photo identification as per to the norms of place of employment.

List of Do's and Don'ts for a Patient Care Assistant

DO's

- DO communicate to the best of your ability with the patient.
- DO follow laws and regulations that govern Health Information Patient Privacy Act (HIPPA) or as per local policy of the hospital in the appropriate manner and seek clarification, when needed, from the preceptor regarding any professional, legal, or ethical issues.
- DO master the routine and site-specific procedures of each rotation quickly so you can focus on competencies and skills specific to the rotation.

- DO complete the various tasks assigned by the preceptor during each rotation (i.e., outline by the instructor).
- DO complete every assignment given to ensure you pass the program successfully and receive a passing grade.
- DO request to be placed somewhere new, not in a facility where you have already worked.
- DO report to the assigned externship / internship site ON TIME!
- DO make up hours in case of illness and emergency at the site originally assigned.
- DO follow facility protocol and procedures to make up any missed hours.

DON'T'S

- DON'T act without the authority of the preceptor, in regards to advising patients, health professionals or other professional activities.
- DON'T accept or receive pay, either directly or indirectly, from the patient.
- DON'T request to be placed with someone you are related to.

Exercise

I Short Answer Questions

1. What are the three qualities that Patient Care Assistant should possess?

Checklist for Assessment Activity

Use the following checklist to see if you have met all the requirements for assessment activity:
Part A

1. Differentiate between the DO'S and DON'TS of a Patient Care Assistant.

Part B

Discuss in class the following:

1. What are the good qualities of Patient Care Assistant?
2. What are the DO'S and DON'TS of a Patient Care Assistant in healthcare set up?

Session 6: Biomedical Waste and its Management

Relevant Knowledge

Hospitals, clinics, and medical teaching facilities dispose off waste products that have a potential risk to people, animals, and the environment. "Any waste which is generated during the diagnosis, treatment, or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biological" are considered biomedical waste according to the Biomedical Waste Management and Handling Rules 1998 of India. When these waste products are not disposed of properly, it may result in transmission of diseases to humans. Patient Care Assistants, like other Health Care Workers must know what biomedical waste is and how to dispose them off in the appropriate containers. By having waste classified, it becomes easier to process the waste so that it is decontaminated following existing guidelines. In addition, proper classification and disposal of biological waste protects

healthcare workers and others in the community from accidental exposure to infectious or hazardous materials.

Segregation of Biomedical Waste at Source

As soon as a waste product is identified, it must be disposed of properly according to the classification of that waste. For example, if you used a glove contaminated with a body fluid, such as blood, it must be disposed in the right container immediately. By disposing and segregating the waste at its source, it will limit the potential exposure to individuals involved in waste management.

Colour Coding and Type of Containers for Disposal of Bio-Medical Waste

BLACK BAG: Black bags are used for disposing off paper waste, uninfected plastic waste, gloves, wrappers, masks, empty ointment tubes and caps.



YELLOW BAGS: yellow bags are used for disposing off the following items:

- Items contaminated with blood.
- Cotton containing body fluids.
- Blood stained tissues.
- Dressings, soiled plaster cast.
- Discarded medicines.
- Cytotoxic drugs.
- Electrocardiogram (ECG) electrodes.



BLUE BAGS: Blue bags are used for Disposing off the following items:

- All unbroken glasses and vials.
- Empty uninfected bottles (Betadine, Micro-shield bottles).

RED BAGS: Red bags are used for collecting and disposing the following:

- Infected plastic waste
- Catheters
- Gloves
- Syringes, IV sets
- Blood bags
- Uro bags
- NG tube
- Vacutainers
- ET tubes
- Ventilator
- Circuits
- Oxygen mask
- Three-way extension tubes
- Blood glucose strips

Label for Transport of Bio-Medical Waste Containers / Bags

After segregation of biomedical waste, they will need to be transported according to established rules to the appropriate disposal facility. Some of these wastes will be burned (incinerated), microwaved, autoclaved, buried, or as specified by policy or legislation. These policies will also specify the method in which the waste will be transported. Manual handling of the biomedical waste is minimized by the use of available technology. Safeguards are also in place to minimize scavengers from accessing the biomedical waste. For transport of the waste, rules specify that the label contain the biomedical waste, a signature from the doctor or nurse, and the destination of the waste. The following illustrations indicate the universal symbol for biohazardous wastes.



Figure: 3

Exercise

1. Define the following:
 - a) Biomedical waste
2. Give five examples of waste products to be disposed in a Red Colour bags.
3. Give five examples of waste products to be disposed in a Yellow Colour bags.

4. Fill in the blanks

1. Infected plastic waste, catheters, gloves and syringes must be disposed in _____ bucket.
2. Paper waste and kitchen waste must be disposed in _____ bucket.
3. Unbroken glasses and vials should be disposed in _____ bucket.

Part A

1. Define biomedical waste management.
2. Discuss the various colour code of disposing waste.

Part B

Discussed in class the following:

1. Why biomedical waste should be segregated and disposed off in bags with different colours?
2. What precautions are to be followed while segregating and disposing off the biomedical waste?

UNIT – 3

PERSONAL HYGIENE AND HYGIENE STANDARDS

CBSE STUDY MATERIAL 2019

Learning Outcomes

Unit 3 PERSONAL HyGIENE AND HyGIENE STANDARDS				
Location Classroom/ and organi- zation.	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> ● Demonstrate good hygiene practice. 	<ul style="list-style-type: none"> ● Describe grooming routines to be followed for personal hygiene. ● Describe the importance of personal hygiene. 	<ul style="list-style-type: none"> ● Practice good personal health and hygiene. ● Enlist the hygiene routine to be followed to ensure good health. ● Demonstrate handwashing. ● Demonstrate trimming of nails. 	Interactive Lecture: <ul style="list-style-type: none"> ● Personal Hygiene. Activity: <ul style="list-style-type: none"> ● Demonstrate hand washing ● Demonstrate trimming of nails.
	<ul style="list-style-type: none"> ● Identify factors affecting good health. 	<ul style="list-style-type: none"> ● Describe the factors that affect health and prevent disease. 	<ul style="list-style-type: none"> ● Demonstrate the knowledge of maintaining routine exercise and good health. ● Prepare a plan for maintaining good physical health. 	Interactive Lecture: <ul style="list-style-type: none"> ● Good physical health and physical exercises. Activity: <ul style="list-style-type: none"> ● Preparation of checklist of health parameters. Perform various physical activities and explain their advantages and limitations.
	<ul style="list-style-type: none"> ● Perform handwashing. 	<ul style="list-style-type: none"> ● Describe the method of hand washing. ● Describe the importance of practicing good hand hygiene. 	<ul style="list-style-type: none"> ● Demonstrate hand washing and hygiene practices. 	Interactive Lecture: <ul style="list-style-type: none"> ● Hand washing and hygiene. Activity: <ul style="list-style-type: none"> ● Demonstration of hand washing procedure. Discussion on hygiene practices followed at the Hospital.

	<ul style="list-style-type: none"> ● Demonstrate personal grooming. 	<ul style="list-style-type: none"> ● Describe the importance of good appearance grooming in life and work place. 	<ul style="list-style-type: none"> ● Demonstrate good grooming habits as per norms of healthcare industry. 	<p>Interactive Lecture:</p> <ul style="list-style-type: none"> ● How to prepare and follow daily personal grooming plan? <p>Activity:</p> <ul style="list-style-type: none"> ● Hand-on practice & session on grooming and other practices related to personal care and hygiene.
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Session 1: Demonstrate Good Hygiene Practice

Relevant Knowledge

Hygiene is a set of practices performed for the preservation of health. While in modern medical sciences there is a set of standards of hygiene recommended for different situations. What is considered hygienic or not may vary between different cultures and gender groups. Some regular hygienic practices may be considered as good habits by a society, while the neglect of hygiene can be considered disgusting, disrespectful or even threatening.

Personal Hygiene

Personal hygiene is the first step to good grooming and good health. Elementary cleanliness is common knowledge. Neglect causes problems that you may not even be aware of.. More often than you know, good looks are the result of careful and continuous grooming. Hand washing ,brushing bathing nail care etc. are an integral part of personal hygiene Every part of the body demands a basic amount of attention on a regular basis, such as care of Hair

- Skin
- Teeth
- Hands
- Nails
- Feet
- Menstrual Hygiene
- Bathing
- shaving

Hair

Hair is your crowning glory. it is easy enough to maintain it. Keep it at a length and style at which you can maintain it.

Wash your hair daily using soap or mild shampoo. Avoid shampoos with borax or alkalis. Rinse well. Dry your hair after a wash. Brush your hair three to four times a day with a soft bristled brush or a wide toothed comb. Wash your brush and comb regularly

Skin

Soap and water are essential for keeping the skin clean. A good bath once or twice a day is recommended, especially in tropical countries like India. Those who are involved in active

sports or workout should take a bath after the activity.

A mild soap will do the job adequately. Germicidal or antiseptic soaps are not essential for the daily bath. You can use a bath sponge for scrubbing. Back brushes and heel scrubbers are available. But do not use abrasive material. Wash off well after soaping. Drying with a clean towel is important. Avoid sharing soaps and towels.

Teeth

Have you heard of the sixty-second battery operated wonder brush? It has been analysed that it takes only that long to give your teeth a good brush. You have to hold the brush to your teeth and say cheese (and then perhaps S-A-U-C-E for the brush to get a good scrub inside!). Well, whether it is a neem twig or battery brush, you cannot give brushing a miss. Brush teeth twice a day and rinse well after every meal. Brushing before going to bed is important

While brushing, pay attention to the fact that you are getting rid of the food particles stuck in between the teeth and in the crevices of the flatter teeth at the back, the molars and premolars. Brush down on the upper teeth and brush up on the lower teeth. Use a circular motion. Pay attention to the tongue and the inner surface of teeth as well. The brush should have resilient bristles. It should be rinsed well and left to dry after use. There are no perfect toothpastes or powders. Use one without harsh abrasives or strong antiseptics.

Hands

The world around us swarms with micro-organisms. Some bacteria are found on our bodies.. Wash hands thoroughly with soap and water before and after every meal and after visiting the toilet. Soaping and rinsing should cover the areas between fingers, nails and back of the hand. Hands should be dried with a clean towel after wash. The towel at the wash stand has to be washed and changed everyday.

While cooking, especially when packing lunches, you can prevent food from spoilage and minimise contamination by keeping your hands clean. While handling food avoid scratching, or touching the ears, nose, mouth or other body orifices. If you need to use a handkerchief or tissue, wash your hands after that. Keep your nails short. Nail Polish users should see that it does not chip off into the food.

Nails

Clip nails short, along their shape. Don't cut them so close that it pinches the skin. A healthy body ensures healthy nails. Brittle or discoloured nails indicate deficiencies or disease conditions.

Feet

Give your feet a good scrub with a sponge, pumice stone or foot scrubber that is not made of very abrasive material when having a bath. Dry after bath between toes. Keep toenails clipped.

In many Indian households it is mandatory to wash feet as you enter the house. Wear cotton socks. Wear a clean pair every day. Powder your feet before wearing socks. It will help in keeping away sweat and fungal infection. Give importance to wearing comfort in the choice of footwear. For those who go barefoot indoors, door mats must be cleaned or changed frequently. Extra foot care is required for diabetics.

Menstrual Hygiene

Maintaining menstrual hygiene is an important aspect of personal hygiene. Best is to use good quality sanitary pads. Absorbent pads may be noticeable in form fitting clothes.

Apart from pads, Tampons are also available, however whatever while using them necessary instruction should be followed.

Whatever the preference, washing is important. There need be no taboo about bath on these days.

Importance of Personal Hygiene

Maintaining personal hygiene is necessary for many reasons; these can be personal, social, health, psychological or simply as a way of life. Essentially keeping a good standard of hygiene helps to prevent the development and spread of infections, illnesses and bad odour.

Personal Reasons

Self-esteem, confidence and motivation can all be altered by our body image, often reflected on our ability to care for ourselves and keep good hygiene practices.

A bright white smile with clean and healthy teeth can endear people to us, whereas brown, unhealthy teeth can cause embarrassment and can alter our sense of well-being. Healthy hair, skin and nails are signs of a good well-balanced diet and can give us confidence in everyday life. Such hygiene maintenance boosts up self-confidence and hence overall growth.

Social Reasons

By ensuring that our body is clean and well presented, we are more assured of projecting a positive body image that reflects our personalities. Children should be taught the importance of hygiene and how to achieve good hygiene very early to keep themselves and others healthy. Person with good hygiene is well appreciated socially.

Health Reasons

A good hygiene has direct relation to good health. Hand washing cannot be emphasized enough as this simple action can prevent a plethora of illnesses and disorders. Many people 'forget' to wash their hands after using the toilet or before handling foods; this can cause illness. Conditions such as head lice, athlete's foot are related to lack of hygiene.

Psychological Issues

People feel more confident, when they keep themselves clean and tidy and look presentable. Our chances of succeeding either in work or social settings can be influenced by good hygienic practices.

Overall, maintaining hygiene not only helps to reduce the risks of ill health but also affects how other perceive us and can influence our levels of confidence and self-esteem which can affect many aspects of our lives.

Exercise

1. Enlist the hygiene routine to be followed to ensure good health.

Answer the following questions:

1. What is Hygiene?

2. What are the hygiene routines to be followed to ensure good health?
3. What is the relation between health and hygiene?

Use the following checklist to see if you have met all the requirements for assessment activity:

Part A

1. Define hygiene.
2. Differentiate between hygiene and sanitation.

Part B

Discuss in class the following:

1. What is Hygiene?
2. What are the hygiene routines to be followed to ensure good health?
3. What is personal hygiene?

Session 2: Describe Factors affecting Good Health

Relevant Knowledge

Good health is not only about not being ill, it is about being happy and feeling whole from a physical, mental and spiritual point of view. Health is the level of functional or metabolic efficiency of a living organism. In humans, it is the general condition of a person's mind and body, usually meaning to be free from illness, injury or pain. Healthcare involves promoting health and preventing disease. It is essential for an health care to maintain personnel hygiene, remain healthy and look presentable. Factors for good health includes:

Healthy Diet: Ensure eating well balanced diet including all macero and micronutrients. The food should be cooked well, fresh and served hygienically. Food from each of the five major food groups should be eaten daily (milk, meat, fish and poultry, vegetables, fruits, bread, cereals, rice and pasta). Avoid use of tobacco, drugs and alcohol. Use of tobacco, alcohol and drugs, seriously affects good health

- **Rest:** Adequate rest is important for maintaining good health. Provides energy and ability to deal with stress. The amount of rest or sleep required varies.
- **Regular Exercise:** it promotes good health and feeling of well being. It is equally important to maintain good posture. Prevents fatigue and puts less stress on muscles
- Stand straight with muscles pulled in, shoulders relaxed and weight balanced equally on both feet
- Maintains circulation and improves muscle tone, helps mental attitude, contributes to more restful sleep

Maintaining a successful routine exercise

1. Make good health as your goal

Remember that your overall health is what matters most. Vow to not make excuses, commit yourself to a lifestyle change, and start new habits that will improve your health and outlook.

2. Start slowly and gradually to build your fitness

A gradual approach to fitness will help ensure that you maintain your routine and prevent injuries.

4. Eat for balanced energy

Be sure that your overall diet is well balanced to give you the energy you need throughout the day and during your workout. Since eating just before you exercise can lead to cramping, consume an easily digestible food such as a banana at least an hour before you work out.

5. Keep a written log of your exercise schedule and set goals

In addition to being a good reminder of what you have done at each workout, a written log will give you a chance to work toward a goal and see what you have accomplished as you progress through the weeks and months.

6. Exercise each day

Establishing a routine often makes it easier to stick with an exercise program.

7. Exercise with a friend whenever possible

Walking or running with a friend will give you the chance to visit as well as ward off boredom. Many exercisers suggest their workout flies by when they have a partner.

8. Change your route if you walk or run

Check out new neighbourhood, tracks and parks. Changing the scenery can add interest to your routine and help prevent boredom.

9. Warm up, work out and cool down with each exercise session

Starting slowly and gradually increasing the intensity of your workout is a good way to prevent injuries.

10. Include music in your routine

Music is a good distraction from the monotony of exercise. Use faster tunes to boost the intensity of your work out and calm music to help you cool down.

11. Consider safety

Choose routes with little traffic. Walk or jog on sidewalks whenever possible. If you exercise outside, schedule your workout during the day. When exercising at dawn, dusk, or at night, wear bright colours and reflectors so that you can be easily spotted.

12. Keep changing your exercise

Try Yoga for stretching and balance. Brisk walking, running, jogging, and spinning

is useful for enhancing for endurance; and weight training to build strength. Cross training or combining a variety of exercises in your weekly routine is the best way to boost your metabolism and ensure overall strength and fitness. Make a point of adding extra activities in your day such as taking the stairs instead of the elevator and walking instead of driving to lunch.

13. Dress appropriately for your activity

Wear fast-drying fabrics, such as polyester blends that wick away moisture and help keep you warm. Be sure your shoes fit well and are made for the activity you have chosen.

14. Focus on a pleasant memory, thought, fantasy, or activity while you work out. Some exercisers find inspiration in positive self talk as they work out.

15. Have a positive outlook about weather

Exercising outside in light rain, on cloudy days, and even cold, windy days can energise you and make you feel more in touch with the weather elements.

16. Get plenty of sleep

Sleep is essential for getting a good workout. If you did not have enough sleep, either take a rest day or modify your workout so that it is less vigorous.

17. Drink at least 2 litres of water per day

Remember that your body is 70 percent water. If you have not had enough to drink, your workout is likely to fall short of your expectations.

18. Listen to your body

If you are tired or beginning to get a cold, take a break. Your body needs time to rest and repair.

19. For added physical activity and sociability, take a dance class

Dancing provides a terrific aerobic work out and burns up to 300 calories an hour. Remember that increased physical activity of any kind will help keep you healthy.

20. Don't let anything come between you and your fitness routine

Since exercise is one of the most important things you can do to maintain good physical and mental health, be sure to include it in your daily routine no matter what scheduling complications you encounter. Make exercise as essential as bathing, brushing your teeth, eating, and sleeping.

21. Eat a healthy diet

A healthy, low-fat diet that is combined with regular exercise can help guard against obesity, diabetes, high blood pressure, insomnia, depression, anxiety, osteoporosis, cancer, and heart disease.

22. Reward yourself!

Take a hot bubble bath, get a massage, or get a new outfit to celebrate your hard work.

Exercise

Short Answer Questions

1. What is good health?
2. What are the three factors that affect good health?
3. What should be done to maintain a good health?
4. Discuss the importance of exercise for good health.

Session 3 : Perform Hand Washing

Relevant Knowledge

The Center for Disease Control and Prevention (CDC) has stated: “It is well documented that one of the most important measures for preventing the spread of pathogens is effective hand washing.” Hand washing for hand hygiene is the act of cleaning one’s hands with or without the use of water or another liquid, or with the use of soap, for the purpose of removing soil, dirt, and/or microorganisms. In addition to hand washing with soap and water, the use of alcohol gels is another form of killing some kinds of pathogens and healthful bacteria, but their effectiveness is disputed, and may lead to antibiotic-resistant bacterial strains. Use soap and warm running water and wash hands for at least 10 seconds. Liquid soap is best.

Medical hand hygiene pertains to the hygiene practices related to the administration of medicine and medical care that prevents or minimizes disease and the spreading of disease. Hand washing with soap is the single most effective and inexpensive way to prevent diarrhea and acute respiratory infections (ARI). The main medical purpose of washing hands is to cleanse the hands of pathogens (including bacteria or viruses) and chemicals which can cause personal harm or disease. Washing hands properly after using the toilet, changing nappies, handling animals and before and after handling food helps prevent the spread of various forms of gastroenteritis, some of which can cause serious health problems. This is especially important for people who handle food or work in the medical field, but it is also an important practice for the general public.

Why is Hand Hygiene Important?

The hands normally have a “resident” population of micro-organisms. Other micro-organisms (germs) are picked up during everyday activities, and these are termed “transient” organisms. We all carry millions of germs on our hands, most are harmless, but some cause colds, flu, skin infections or diarrhea.

When we forget to wash our hands, we can spread these germs to other people. We can also infect ourselves by touching our eyes, mouths or open cuts. Hand washing should remove these transient organisms before they are transferred to surfaces, another patient or to a susceptible area on the same patient.

Why is Hand Hygiene Important in Health Care?

People receiving healthcare may be more vulnerable to infection from germs carried on their hands or other people’s. Germs that naturally live on the skin and normally cause few problems may be more serious when brought into a healthcare environment. These germs are often passed from one person to another by physical contact so it’s important that patients, visitors, health care workers, nursing staff and doctors cut the risk of spreading infections by regularly cleaning their hands.

Advice to Healthcare Staff and Patients

All health care staff should use hand wash with soap and water or alcohol gel:

- Before and after direct patient contact;
- After helping a patient to use the toilet
- After any procedure;
- Before putting on and after taking off gloves.

Please wash your hands before and after eating food and after using the toilet. You may wash them at any sink with liquid soap and water or use one of the hand gels available. Removal of microorganisms from skin is enhanced by the addition of soaps or detergents to water. The

main action of soaps and detergents is to reduce barriers to solution, and increase solubility. Water is an inefficient skin cleanser because fats and proteins, which are components of organic soil, are not readily dissolved in water. Cleansing is, however, aided by a reasonable flow of water. A hand sanitizer or hand antiseptic is a non-water-based hand hygiene agent. Hand sanitizers are most effective against bacteria and less effective against some viruses. Alcohol-based hand sanitizers are almost entirely ineffective against norovirus or Norwalk type viruses, the most common cause of contagious gastroenteritis.

If you are assisting for wound dressings, stitching, catheterization or ansecuring an intravenous line, try not to touch them any more than absolutely necessary. You could spread germs to other parts of the body.

Let us now practice the steps used for hand washing.

ADD WHO five steps of hand hygiene.

Steps for Hand Washing



Figure: 1

Exercise

- How hand washing helps in preventing spread of germs?
 - What are the precautions to be followed while using various types of soaps/ hand sanitizers?
- Practice the steps of hand washing.

Short Answer Questions:

1. What is hand hygiene?
2. Why do we need to practice good hand hygiene?

SESSION 4: DEMONSTRATE PERSONAL GROOMING

Relevant Knowledge

Personal grooming is the art of cleaning, grooming, and maintaining body.

Importance of Personal Grooming

Personal grooming is important for a positive self-image, and thus every effort should be made to maintain a pleasing and attractive. Self grooming is important as it creates better self-confidence when interacting with other health care providers, patient and their attendants.

Basic Grooming

Basic grooming involves practices that are followed daily to keep healthy. Some of these practices are as follows:

- Groom your hair
- For long hair, tie them appropriately. Cover them with a cap in critical areas of hospital.
- Brush your teeth.
- Take care of your skin.
- Trim your fingernails and toenails, and clean the dirt out from under them.
- Keep the ears clean
- Wear name badge and clean uniform.

Use effective communication skills while speaking to the patient and their relatives. Get regular health check-up.

Exercise

Short Answer Questions

1. What is personal grooming?
2. Why grooming is important?

UNIT – 4

PRIMARY HEALTHCARE AND EMERGENCY MEDICAL RESPONSE

CBSE STUDY MATERIAL 2019

Learning Outcomes

Unit - 4 PRIMARY HEALTHCARE AND EMERGENCY MEDICAL RESPONSE				
Location Classroom/ Public Places, Police Station, Forensic Laboratory.	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Identify component of Primary Health Care. 	<ul style="list-style-type: none"> Describe the importance of primary healthcare. Describe the various indicators of the Millennium Development Goals (MDGs) related to health. to health. 	<ul style="list-style-type: none"> Identify the need of Primary Healthcare in a given scenario. Enlist the essential components of primary Healthcare. Enlist the various indicators of the Millennium Development Goals (MDGs) care camps. 	Interactive Lecture: <ul style="list-style-type: none"> Primary Health-care and Millennium Development Goals (MDGs). Activity: <ul style="list-style-type: none"> Volunteer at mother and infant Enlisting indicators of the Millennium Development Goal (MDGs) related to health.
	<ul style="list-style-type: none"> Demonstrate chain of survival. 	<ul style="list-style-type: none"> Describe the various medical emergency situations. 	<ul style="list-style-type: none"> Perform early recognition and call for help. Demonstrate the knowledge of responding to a medical emergency. 	Interactive Lecture: <ul style="list-style-type: none"> First Aid and Emergency Response. Activity: <ul style="list-style-type: none"> Demonstration of Basic First Aid Practices.

Session 1: Describe Essential Components of Primary Healthcare and Emergency Medical Response

Relevant Knowledge

Access to healthcare has been considered a greater challenge to other challenges including affordability and availability of quality healthcare. Medical treatment is not just providing treatment to sick patients but extends to well-being of the people in community and includes disease prevention and promoting good health, and lifestyle habits. There evolved a specific goals and objectives for maintaining health of an individual as well as community. To achieve these objectives appropriate systems need to be developed to measures taken to prevent diseases on one hand and promote good health on other side with provision for treatment of diseases on other side. Various studies indicated that significant population in India borrows money to meet their healthcare costs which are sudden and unexpected. The progress of the country depends on strong health system, preventive and promotive health. It is essential

to develop good systems to include preventive health, have effective immunization, provide adequate understanding and care for maternal and child health, effective reimbursement or insurance mechanism to reimburse the costs of medical treatment, mechanism to manage epidemics and good emergency transport system to provide prehospital care during emergencies. Health care not only requires these aspects, but also supportive and rehabilitative support to the patients with chronic diseases.

Primary Health Care

Health is defined as “State of complete physical, mental and social well-being and not merely an absence of disease or infirmity”. Primary Health Care is medical care available to people at first level, it combines all the available medical facilities at the community for improving health status. Primary Health Care is defined as an essential healthcare based on scientific methods, universally accessible to the individuals and family in community at a cost which community and country can afford. It is the first level of contact of the individuals and integrates the family and the community with the national health system bringing healthcare as close as possible to where people live and work which includes awareness on preventive health, first level care at the community, immunization, alerts awareness and precautions in case of epidemics, referral of patients to appropriate care facility, supportive supervision and guidance and logistic support and supplies. Primary Health Care is conceived as an integral part of the country’s plan for socio-economic development. In India Primary Health Care is delivered by individual doctors in private sector and infrastructure in public sector comprising of Village level Accredited Social Health Activist (commonly known as ASHA), Village level ANM, Sub Centers and Primary Health Centers.

Components of Primary Healthcare

The essential components of Primary Healthcare are as follows:

- Education about prevailing health problems and methods of preventing and controlling them.
- Promotion of food supply and proper nutrition.
- Adequate supply of water and basic sanitation.
- Maternal and Child Healthcare including family planning.
- Immunization against infectious diseases.
- Prevention and control of endemic diseases.
- Appropriate treatment of common diseases and injuries.
- Provision of essential drugs.

Emergency Medical Response

Medical Emergency is any medical condition which has a sudden onset, unexpected occurrence needs attention, may be a dangerous may possess an immediate risk to person’s life, limb, organ or long term health. Considering the emergency situation and availability of resources, the Emergency Medical Response varies. However a standardized approach with sequential steps, well reinforced in the society and healthcare provider, followed systematically helps in increasing chances of survival and faster recovery. Emergency Medical Response is standard medical response by a first responder or qualified medical professional based on his competency provided to emergency victim which would help in increasing the chances of survival.

First Aid

In our day-to-day life we come across many medical and surgical condition warranting immediate care. Provision of the bystander care would help the patient overall outcome. At times, in few medical emergencies we come across unconscious / unresponsive patients, or seriously ill patients who need attention and no immediate professional medical help is available. In such case every second counts.

Under such circumstances, it is quite common that everyone attempts to help in their own way to rescue the victim. Instead if one, who is a qualified first aider or doctor takes lead and adopts a standard approach to respond, it would increase the chances of survival. Time is of essence as any episode of lack of oxygen to vital organs like brain and heart can lead to adverse effect. Appropriate first aid at appropriate time help in the sustenance of life, prevent a victim's medical condition from worsening, increases chances of recovery, and to assist to timely and safe transportation/medical help.

DEALING WITH EMERGENCIES AND INITIAL MANAGEMENT

Whenever in an emergency situation, a First aid provider should give the highest priority to the following steps, in this sequence:

- ✚ Your own safety is most important
- ✚ Check for an unsafe situation (traffic, electricity cables etc.) and summon help to make the area safe like calling police, fire brigade, life guard etc.
- ✚ See whether the victim is responding or breathing normally (rise and fall of chest), any limb movements, coughing, any air felt on the cheek or any breathing sounds are noted.
- ✚ Also, see whether the victim is bleeding or not.
- ✚ Look for any deformity or swelling of limbs.
- ✚ If the victim is apparently unconscious, then Check the victim's response to your sound and to your touch (Tap and talk)
- ✚ Also, check whether there is any sign of life and if the victim is breathing or not.
- ✚ A gurgling or snoring sound in an unconscious victim is an indirect indicator that air is not getting through the windpipe.
- ✚ Always stay calm, don't panic.
- ✚ Call an ambulance for help
- ✚ Call whoever is available nearby

PROVIDE APPROPRIATE AND TIMELY FIRST AID

- ✚ Introduce yourself to the victim
- ✚ Show empathy, kindness, and concern
- ✚ Make him/her comfortable
- ✚ In case you are providing any first aid, explain what you are going to do and what will likely happen
- ✚ In general, you should not give any food item and/or drink to the victim, especially when the person is injured or unconscious
- ✚ Always wash your hands before and after providing first aid.
- ✚ The most important principle for first aid is assessment and management of ABC (Airway, Breathing Circulation). This mandates keeping the airway open, provision of breathing and maintains circulation (this may require control of bleeding by direct pressure). At times, patient may sustain cardio-respiratory arrest, then cardio-respiratory resuscitation is required.

Compression Only Life Support (COLS)

This technique is applicable for providing CPR of a cardiac arrest victim by a lay person and has been formulated by Indian Resuscitation Council. The provision of immediate bystander CPR is essential for optimal outcome after a cardiac arrest.

Core links in adult COLS:

Sequential conducts of targeted core steps are essential for optimal outcome. The core links for resuscitation in adult by lay person in adult COLS as (Figure):

- Early Recognition and Activation,

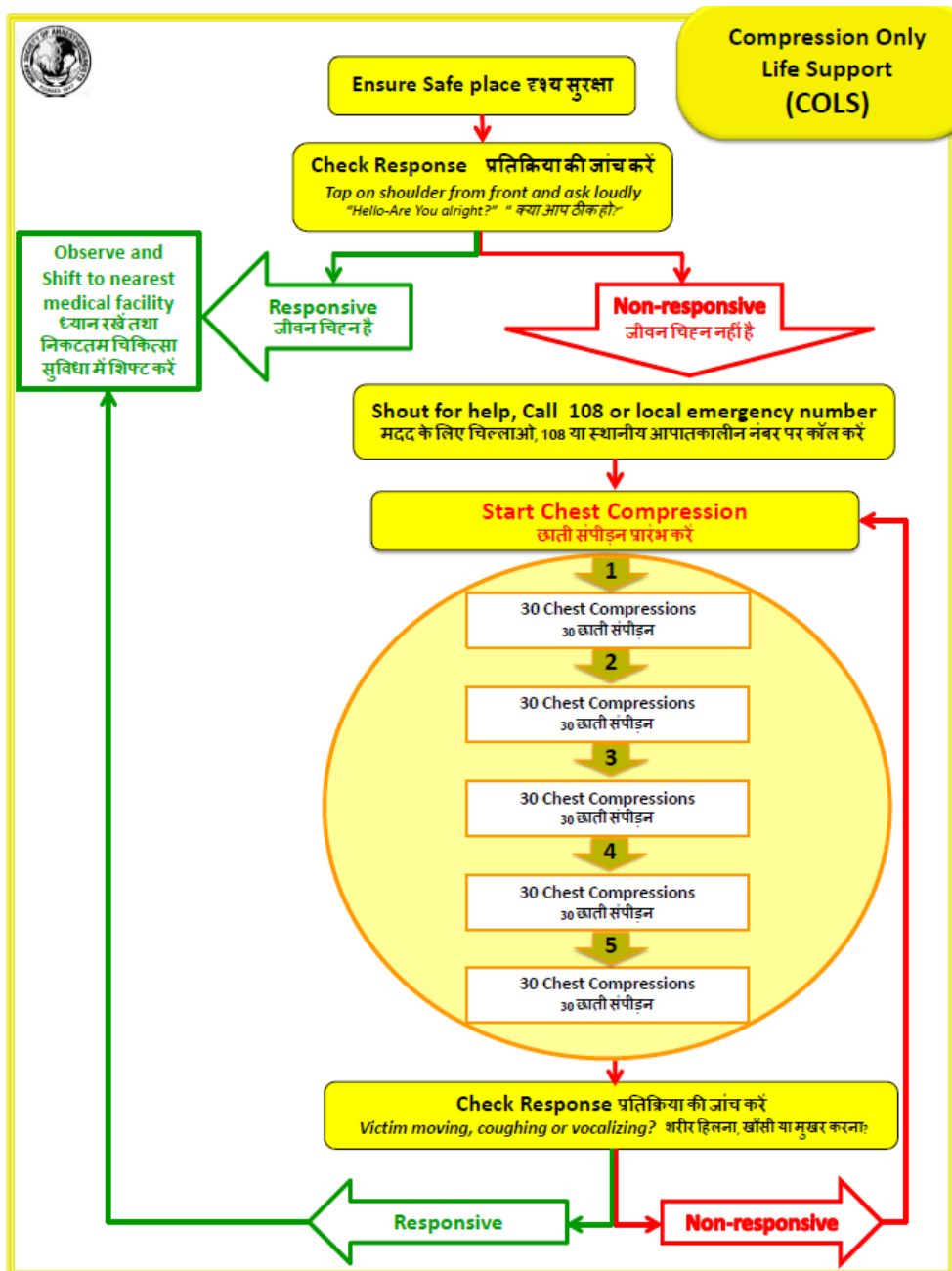
- Early Chest Compression
- Early Transfer.



Figure: Core Links of COLS. (Photo Courtesy: Indian Resuscitation Council)

Steps for Adult COLS:

The adult COLS is a simple, easy to remember and perform cardiac resuscitation by a minimally trained person, unable or unwilling to perform rescue breaths (Figure). It is the preferred algorithmic approach by a lay person who witnesses a victim collapsing or comes across a victim who has collapsed. It can even be performed by family members who witnesses collapse of their near and dear ones. COLS have a series of predefined steps which need to be followed sequentially.



Ahmed SM, Garg R, Divatia JV, Rao SC, Mishra BB, Kalandoor M V, Kapoor MC, Singh B. Compression-only life support (COLS) for cardiopulmonary resuscitation by layperson outside the hospital. Indian J Anaesth 2017; 61:867-73. <http://www.ijaweb.org/text.asp?2017/61/11/867/218099>

Figure: Algorithmic approach for Cardiac Arrest Victim: Compression Only Life Support (COLS).
(Photo Courtesy: Indian Resuscitation Council)

Safe place for resuscitation:

The safety of the rescuer is paramount. In panic situations, mishaps can happen leading to injury to rescuer, if the place is not safe for management of victim with cardiac arrest. In case any imminent danger is perceived (like risk of accident, fire, electrocution, drowning, riots, etc), then the rescuer should activate the concerned authority or seek help from the available people to shift the victim to a safe place. The resuscitation should be initiated,

as soon as feasible, while this activity of information is being undertaken.

EARLY RECOGNITION AND ACTIVATION FOR HELP

VICTIM'S RESPONSE CHECK:

For victim's response check, come from front, facing the victim face, tap on the shoulder, speak loudly (eg HELLO - Are you alright?) in a language the victim could understand. If the patient responds either by verbal response and/or by purposeful movement, then cardiopulmonary arrest is unlikely. Such victim needs to be monitored constantly and shifted to nearby medical facility at the earliest for further evaluation and management. If no response is elicited, the victim may be having cardiopulmonary arrest and would require further help. The emergency medical system must be activated for early transfer of the victim to nearby hospital.



Figure: Check response (Photo Courtesy: Indian Resuscitation Council)

Call for help, inform emergency medical system or ambulance service:

If the rescuer is alone, then he should activate the emergency medical system or ambulance services himself for early transfer of the victim for definitive treatment.

- **Early Chest Compression:**

Once the cardiac arrest is recognized, the rescuer should place the victim supine with his back over a hard flat surface or over the ground and start providing chest compression immediately. Cycles of 30 chest compressions should be initiated. This guideline suggests identification of centre of chest by identifying the xiphoid process (lowest end of breast bone) and keeping heel of the hand 2 fingers above it for chest compression. The rescuer should chant the count loudly 1,2,3,4,30, to maintain the speed and number of

chest compressions. The rate of chest compressions should be 120/minutes and compression depth should be at least 5 cm but not more than 6 cm. The rescuer should allow complete chest recoil between compressions without lifting hands from the chest but should not lean on the victim's chest. There should be minimum interruptions during chest compressions.

If the rescuer is alone he/she should continue chest compression for 5 consecutive cycles (30 compressions in each) or more till **there is sign of return of spontaneous circulation (movement of any part of the body, coughing or vocalizing), the rescuer gets exhausted or medical help arrives.** If there is more than one rescuer, then they should exchange hands after every 5 cycles **till there is sign of return of spontaneous circulation or medical help arrives.**

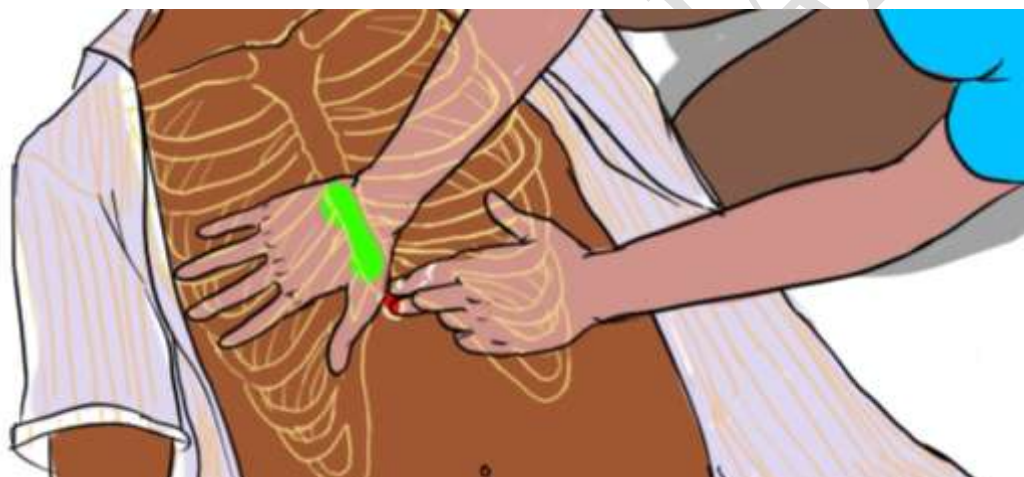


Figure: Chest Compression (Photo Courtesy: Indian Resuscitation Council)

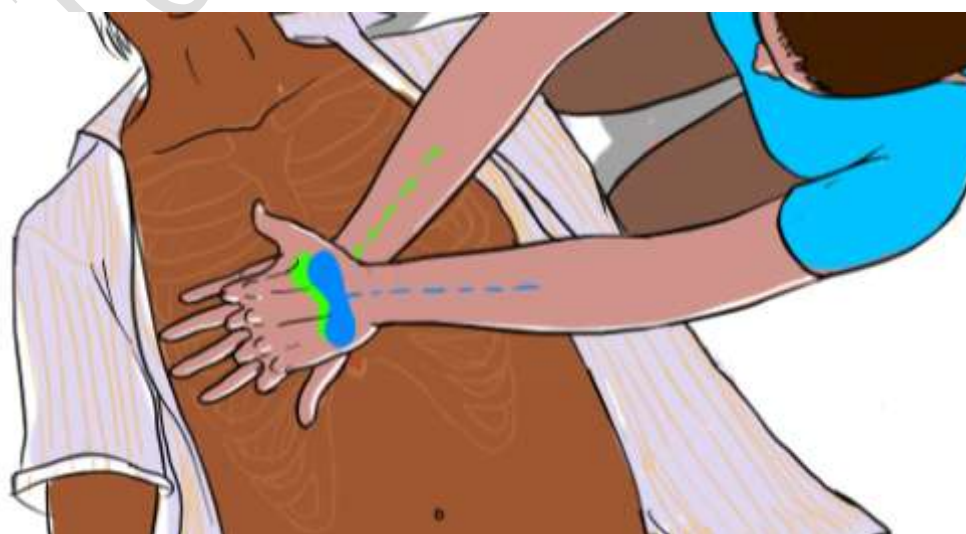


Figure: Chest Compression (Photo Courtesy: Indian Resuscitation Council)



Figure: Elbows straight, fingers interlocked. (Photo Courtesy: Indian Resuscitation Council)

TRANSFER OF THE VICTIM FOR BETTER MEDICAL HELP:

The victim needs definitive medical care and management of the underlying aetiology of the cardiopulmonary arrest and so should be shifted to nearest health care facility. The COLS needs to be continued till medical help arrives (ambulance service) or victim is handed over to a medical care facility or victim becomes responsive (moving, coughing or vocalizing).

Exercise

1. An unconscious patient is lying at a bus stand. People are standing around him. Imagine, you are a trained “First Aider” and you have to respond to the situation. What will you do?

I. Short Answer Questions

- a) Medical Emergency
- b) Emergency Medical Response

2. State the steps involved in Chain of Survival.

II. Fill in the Blanks

1. CPR Stands for_____ .

UNIT – 5

IMMUNIZATION

CBSE STUDY MATERIAL 2019

Learning Outcomes

Unit - 5 IMMUNIZATIION				
Location Classroom, Industry, Organization Hospital.	Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching and Training Method
	<ul style="list-style-type: none"> Differentiate between various types of immunity. 	<ul style="list-style-type: none"> Explain the meaning of immunity. Differentiate between innate and adoptive immunity. Differentiate between passive and active immunity. 	<ul style="list-style-type: none"> Differentiate between Bacteria and Virus. Prepare a sample Immunization Schedule Chart. 	Interactive Lecture: <ul style="list-style-type: none"> Immunization. Activity: <ul style="list-style-type: none"> Prepare Immunization schedule for baby born on 12 June, 2013. Visit to Primary Healthcare and Immunization camp and study the immunization process.
	<ul style="list-style-type: none"> Prepare immunization schedule chart. 	<ul style="list-style-type: none"> Describe the importance of immunization. Describe the side effects of immunization. Describe the various aspects of immunization schedule chart. 	<ul style="list-style-type: none"> Prepare a immunization calendar for an infant based on date of birth. 	Interactive Lecture: <ul style="list-style-type: none"> Immunization Calendar. Activity: <ul style="list-style-type: none"> Discussion on the process of immunization, its advantages and limitations.
	<ul style="list-style-type: none"> Identify the key components of Universal Immunization Programme. 	<ul style="list-style-type: none"> Describe the key components of a Universal Immunization Programme. 	<ul style="list-style-type: none"> Identify the key components of a Universal Immunization Programme. Enlist the diseases covered under UIP. 	Interactive Lecture : <ul style="list-style-type: none"> Universal Immunization Programme. Activity: <ul style="list-style-type: none"> Enlisting of diseases covered under Universal Immunization Programme.
	<ul style="list-style-type: none"> Identify the key components of a Pulse Immunization Programme. 	<ul style="list-style-type: none"> Describe the key components of a Pulse Immunization Programme. 	<ul style="list-style-type: none"> Identify the key components of a Pulse Immunization Programme. 	Interactive Lecture : <ul style="list-style-type: none"> Pulse Immunization Programme. Activity: <ul style="list-style-type: none"> Enlisting of disease covered under Universal Immunization Programme.

Session 1: Differentiate Between Various Types of Immunity

Relevant Knowledge

The immune system is your body's way of helping to protect you from infection. When your body is infected by viruses, bacteria or other infectious organisms (e.g. a fungus or parasite), it undergoes a process of fighting the infection and then healing itself.

As a result of this, the next time your body encounters the same organism, you will be 'immune' to this infection. This means that you are less likely to get the same disease again, or if you do, the infection will be less severe. This is the principle behind vaccination.

How Does Immunity Work?

Whenever your body encounters a foreign organism, like bacteria or a virus, a complicated set of responses are set in motion. Your body has two sets of defensive mechanisms, one called 'innate immunity' and another called 'adaptive immunity'.

Innate Immunity

Innate immunity describes your body's barriers to infection that are in-built (or innate). This includes:

- Skin
- The acid in your stomach
- Saliva
- Tears
- Mucus in your mouth and nose
- Cells in your blood stream that can destroy bacteria.

All of these systems are extremely important as a first line of defence to prevent you from becoming infected, and for getting rid of the infections that you do get.

These innate systems do not change with multiple exposures to the same infection; there is no 'learned' response no matter how many times your body is exposed to the same organism.

Adaptive Immunity

Your body's more complicated second line of defence is called adaptive immunity. By adapting to fight infections from particular bacteria or viruses, your body can become immune to infections caused by the same organism in the future. This adaptation by your body to prevent infection is the basis of immunization. Certain types of blood cells can learn from exposure to an infection. This means that the next time they encounter that infection they can remember it and mount a faster and stronger response.

For Example:

- Antibodies are made by the body in response to an infecting organism. They can recognise specific types of viruses or bacteria. They work by attaching themselves to the organism, and preventing them from infecting your body.

Session 2: Describe Immunization Schedule

Relevant Knowledge

What is Immunization?

Immunization protects children (and adults) against harmful infections, before they come into contact with them in the community. Immunization uses the body's natural defense mechanism, the immune response, to build resistance to specific infections. Nine diseases can be prevented by routine childhood immunization - diphtheria, tetanus, whooping cough, poliomyelitis (polio), measles, mumps, rubella, haemophilus influenza type b (Hib) and hepatitis B. All of these diseases can cause serious complications and sometimes death.

Immunization is given as an injection or in the case of polio vaccine, taken as drops by mouth. Immunization helps children stay healthy by preventing serious infections.

Immunization and Vaccination

Technically 'vaccination' is the term used for giving a vaccine, that is, actually getting the vaccine injected or swallowing the drops. 'Immunization' is the term used for the process of both getting the vaccine and becoming immune to the disease as a result of the vaccine. Most people use the terms 'vaccination' and 'immunization' interchangeably but their meanings are not exactly the same because immunity follows vaccination in most, but not all, cases. For the purposes of this workbook, we have always used the term 'immunization' because this is the expression most commonly used in the community.

How Does Immunization Work?

All forms of immunization work in the same way. When someone is injected with, or swallows, a vaccine, their body produces an immune response in the same way it would following exposure to a disease but without the person getting the disease. If the person comes in contact with the disease in the future, the body is able to make an immune response fast enough to prevent the person getting sick.

What is Vaccine?

A vaccine is a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease causing microorganism, and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins. The agent stimulates the body's immune system to recognize the agent as foreign, destroy it, and "remember" it, so that the immune system can more easily recognize and destroy any of these microorganisms that it later encounters. Vaccines may be prophylactic (example: to prevent or ameliorate the effects of a future infection by any natural or "wild" pathogen), or therapeutic (e.g. vaccines against cancer are also being investigated). The term vaccine derives from Edward Jenner's 1796 use of cowpox (Latin variola vaccinia, adapted from the Latin vaccinus, from vacca, cow) to inoculate humans, providing them protection against smallpox.

- Macrophages are specialised blood cells that can directly attack and destroy an infecting organism, digesting them so they cannot produce disease.

Vaccines trigger the adaptive immune system by stimulating the body to make antibodies, so that it can prepare for a potential infection in the future.

Passive immunity is acquired through transfer of antibodies or activated T-cells from an immune host, and is short lived, usually lasting only a few months, whereas active immunity is induced in the host itself by antigen and lasts much longer, sometimes lifelong.

Exercise

1. Prepare a presentation on “how does the immune system works?”

Short Answer Questions

1. What is immunity?
 2. State the difference between innate immunity and adaptive immunity?
- I. Differentiate between innate immunity and adaptive immunity.

Part B

Discussed in class the following:

1. What is immunity?
2. What are the differences between innate immunity and adaptive immunity?
3. What is virus?
4. What is bacterium?

How Long Do Immunizations Take to Work?

In general, the normal immune response takes several weeks to work. This means protection from an infection will not occur immediately after immunization. Most immunizations need to be given several times to build long lasting protection. A child who has been given only one or two doses of diphtheria-tetanus-pertussis vaccine (DTPa) is only partially protected against diphtheria, pertussis (whooping cough) and tetanus, and may become sick if exposed to these diseases. How long do immunizations last? The protective effect of immunizations is not always life-long. Some, like tetanus vaccine, can last up to 30 years, after this time a booster dose may be given. Some immunizations, such as whooping cough, give protection for about five years after a full course.

Is Everyone Protected from Disease by Immunization?

Even when all the doses of a vaccine have been given, not everyone is protected against the disease. Measles, mumps, rubella, tetanus, polio and Hib vaccines protect more than 95% of children who have completed the course. Three doses of whooping cough vaccine protects about 85% of children who have been immunized, and will reduce the severity of the disease in the other 15% of children (who have also been immunized), if they do catch whooping cough. Booster doses are needed because immunity decreases over time. Three doses of hepatitis B vaccine protect over 95% of children.

Why do Children Get So Many Immunizations?

A number of immunizations are required in the first few years of a child's life to protect the child against the most serious infections of childhood. The immune system in young children does not work as well as the immune system in older children and adults, because it is still immature. Therefore, more doses of the vaccine are needed. In the first months of life, a baby is protected from most infections by antibodies from her or his mother which are transferred to the baby during pregnancy. When these antibodies wear off, the baby is at risk of serious infections and so the first immunizations are given before these antibodies have gone.

What are the Side Effects of Immunization?

Common side effects of immunization are redness and soreness at the site of injections and mild fever. While these symptoms may concern you and upset your child at the time, the benefit of immunization is protection from the disease. Paracetamol might be required to help ease the fever and soreness. Other side effects are very rare but if they do occur, a doctor should be consulted immediately.

What is the Importance of Immunization?

Each year, vaccines prevent more than 2.5 million child deaths globally. An additional 2 million child deaths could be prevented each year through immunization with currently available vaccines.

- Immunization saves a child's life: Immunization helps to protect your child against various diseases.
- Immunization is safe and effective: All vaccines that are given to children are completely safe and effective, as various medical professionals have tested them.
- The only discomfort can be pain, redness or tender feeling among few.
- Immunization prevents spread of diseases: If a person is immunized, there is little to risk of an epidemic. Thus, it also prevents spreading of the disease.
- Immunization saves time and money: A prolonged illness can take a toll on your finance as well as your precious time. Immunization is a good investment, as it saves time, money and promotes good health.
- Immunization protects future: Immunization has helped to eradicate polio to some extent. If we keep on practicing immunization, in near future we will be able to eradicate all these diseases completely.
- Immunisation has reduced mortality rate.
- Immunisation has made children more healthy and fit.
- Immunisation promotes long life span.

National Immunization Schedule Chart

Let us now read through the National Immunisation Schedule for Infants, Children and Pregnant Women to understand the importance of immunization against various diseases.

National Immunization Schedule for Infants, Children and Pregnant Women				
Vaccine	When to give	Dose	Route	Site
FoR PREGnanT WoMEn				
TT-1	Early in Pregnancy	0.5 ml	Intra-muscular	Upper Arm
TT-2	4 weeks after TT-1*	0.5 ml	Intra-muscular	Upper Arm

TT-Booster	If received 2 TT doses in a pregnancy within the last 3 yrs*	0.5 ml	Intra-muscular	Upper Arm
FoR InFanTS				
BCG	At birth or as early as possible till one year of age	0.1 ml (0.05 ml untill 1 month age)	Intra-dermal	Left Upper Arm
Hepatitis B Birthdose	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid thigh
OPV-0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1, 2 & 3	At 6 weeks, 10 weeks & 14 weeks (OPV can be given till 5 yrs. of age)	2 drops	Oral	Oral
Pentavalent 1, 2 & 3	At 6 weeks 10 weeks & 14 weeks (can be given till one year of age)	0.5 ml	Intra-muscular	Antero-lateral side of mid thigh
Rotavirus#	At 6 weeks 10 weeks & 14 weeks (can be given till one year of age)	5 drops	Oral	Oral
IPV	Two fractional dose at 6 & 14 weeks of age	0.1 ml	Intra dermal two fractional dose	Intra dermal : Right upper arm
Measles / MR 1 st Doses\$	9 completed months-12 months, (can be given till 5 yrs. of age)	0.5 ml	Sub-cutaneous	Right upper Arm
JE - 1**	9 completed months-12 months	0.5 ml	Sub-cutaneous	Left upper Arm
Vitamin A (1 st dose)	At 9 completed months with measles Rubella	1 ml (1 lakh IU)	Oral	Oral
FoR CHILDREn				
DPT Booster-1	16-24 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Measles / MR 2 nd dose\$	16-24 months	0.5 ml	Sub-cutaneous	Right Upper Arm
OPV Booster	16-24 months	2 drops	Oral	Oral
JE-2	16-24 months	0.5 ml	Sub-cutaneous	Left Upper Arm
Vitamin-A*** (2 nd to 9 th dose)	16-18 months. Then one dose every 6 months up to the age of 5 yrs.	2 ml (2 lakh IU)	Oral	Oral
DPT Booster-2	5-6 years	0.5 ml	Intra-muscular	Upper Arm
TT	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

*Give TT-2 or Booster dose before 36 weeks of pregnancy. However, give these even if more than 36 weeks have passed. Give TT to a woman in labour, if she has not previously received TT.

** JE Vaccine is introduced in select endemic districts after the campaign.

***The 2nd to 9th dose of Vitamin A can be administered to children 1-5 years old during biannual rounds, in collaboration with ICDS

#Phased introduction, at present. In Andhra Pradesh, Haryana, Himachal Pradesh and Orissa from 2016 & expanded in Madhya Pradesh, Assam Rajasthan and Tripura in February 2017 and planned in Tamil Nadu & Uttar Pradesh in 2017.

Phased introduction, at present in five states namely Karnataka, Tamil Nadu, Goa, Lakshdweep and Puducherry. (As of Feb' 2017)

TT – Tetanus Toxoid, OPV – Oral Polio Vaccine, BCG – Bacillus Calmette Guerin, DPT – Diphtheria Tetanus Pertussis

Figure: 1

Exercise

1. Prepare a sample immunization schedule chart for a child.

I. Short Answer Questions.

1. What is immunization?
2. What is vaccine?
3. What is the importance of immunization?

Part A

1. Differentiate between immunisation schedule for Infants, Children and Pregnant Women.

Part B

Discussed in class the following:

1. What is immunization?
2. What is vaccine?
3. Why immunization is important?
4. Why should we prepare an immunization schedule?

Session 3: Describe Key Components of Universal Immunization Programme

Relevant Knowledge

Universal Immunization Program, popularly known as UIP, gained momentum in 1985 and it was implemented in phased manner to cover all districts in India by 1989-90. Immunization is one of the key areas under National Rural Health Mission of Government of India. Since 1997, immunization activities have been an important component of National RCH Programme. Certain diseases may require universal immunization of a population to control them. Such efforts usually target infants in the first year of life so that immunity is completed as early as possible before the risk of infection, (e.g., diphtheria-pertussis-tetanus, polio). Others may require immunization of only selected high risk groups (e.g., at risk elderly for Pneumococcus). In some cases the target group may not be the group that the vaccine is designed to protect (e.g., rubella vaccination of all children and females of child bearing age in order to protect the fetus). Since there are regional differences in infection rates and severity of every disease, the choice of vaccine and dosage regimen will vary with the local epidemiology of the disease, specific target population, and health system. The effectiveness of the healthcare delivery system can also vary with different vaccines, vaccine efficacy, and organization of the local health care service organization. Care must be taken to ensure the balance of risks and benefits, where cost constraints or logistical limitations make continuous universal immunization impossible.

Diseases Prevented through Vaccines used in the Universal Immunization Program (UIP)

Presently, the Universal Immunization Program in India provides vaccines mainly to children below 5 years of age and pregnant women for the following preventable diseases:

1. Tuberculosis
2. Poliomyelitis
3. Diphtheria
4. Pertussis (whooping cough)
5. Measles
6. Tetanus
7. Hepatitis B

8. Japanese encephalitis (in endemic districts)

Vitamin A is not a vaccine, but a nutritional supplement which prevents many deficiencies related conditions. However, administration of Vitamin A is also a part of the Universal Immunization Program. Some other diseases have combined vaccines so as to avoid multiple shots, for example DPT for Diphtheria, Pertussis and Tetanus. This is also called a triple antigen. A pentavalent vaccine (5 vaccines together) is also being considered for introduction in the UIP. This will include DPT+ Hepatitis B vaccine+ vaccine for Haemophilus B.

Key Components of Universal Immunization Programme

As a Patient Care Assistant, one would be responsible for all aspects of program management that would lead to the desired program output. The different aspects of program management include:

1. Human resource
2. Micro planning
3. Capacity Building
4. Logistics management
5. Supervision and monitoring
6. Data for action
7. Social mobilization
8. Financial resources
9. Coordination and work environment
10. Linkages with other maternal and child health interventions

Exercise

Short Answer Questions

1. What is universal immunization?
2. What are the key components of universal immunization?
1. Define Universal Immunization.
2. State the key components of Universal Immunization Programme.

Part B

Discussed in class the following:

1. What is Universal Immunization?
2. What are the different key components of Universal Immunization Programme?
3. What is the importance of Universal Immunization Programme?

Session 4: Pulse Polio Immunization Programme

Relevant Knowledge

Pulse Polio is an immunization campaign established by the government of India in 1995-96 to eradicate poliomyelitis (polio) in India by vaccinating all children under the age of five

years against polio virus. This project deals with the ways to fight poliomyelitis through a large scale immunization programme, co-operating with various international institutions, state governments and Non-governmental organization.

In India, vaccination against Polio started in 1978 with Expanded Program in Immunization (EPI). By 1984, it was successful in covering around 40% of all infants, giving 3 doses of Oral Polio Vaccine (OPV) to each. In 1985, the Universal Immunization Program (UIP) was launched to cover all the districts of the country. UIP became a part of child safe and survival motherland program (CSSM) in 1992 and Reproductive and Child Health Program (RCH) in 1997. This program led to a significant increase in coverage, up to 95%. The number of reported cases of polio also declined from 28,757 during 1987 to 3,265 in 1995.

In 1995, following the Polio Eradication Initiative of World Health Organization (1988), India launched Pulse Polio Immunization Program along with Universal Immunization Program which aimed at 100% coverage. In 2012, India was declared free of polio by WHO.

Importance of Pulse Polio Programme

The Polio viruses are three related enteroviruses: type 1, 2 and 3. All three types cause paralysis. Type 1 causes paralysis most frequently. Polio is highly communicable having incubation period of 7-10 days. Transmission is primarily person-to-person via the faecal-oral route; i.e. the poliovirus multiplies in the intestines and is spread through the faeces. The virus is intermittently excreted for one month or more after infection. Communicability of infected children is highest just prior to the onset of paralysis and during the first two weeks after paralysis occurs. Protective immunity against poliovirus infection develops by immunization or natural infection.

Polio usually begins with common symptoms such as fever, headache, nausea, fatigue, and muscle pains and spasms and is followed by a more serious and permanent paralysis in one or more limbs. More than half of all polio cases occur in children under the age of five. Between 5 and 10 percent of infected persons display only the most general symptoms while more than 90 percent show no sign of illness at all.

Polio vaccine is highly effective in producing immunity to the poliovirus and protection from paralytic polio. Approximately 90 percent or more of polio vaccine recipients develop protective antibodies to all three poliovirus types after two doses, and at least 99 percent are immune following three doses. Dr. Albert Sabin developed Oral Polio Vaccine (OPV). Presently, almost all countries use OPV to achieve polio eradication target. The vaccine not only prevents pernicious infection in the person, but it also precludes transmission of the wild poliovirus to other person. Since polio virus cannot survive outside a host for more than two weeks, theoretically it would be wiped out, resulting in the eradication of poliomyelitis.

For those who infected by the polio virus, there is no cure as such but there is treatment to alleviate the symptoms. Besides this, the affected persons can also be rehabilitated with the help of modern mobility aids. Heat and physical therapy can help to stimulate the muscles of infected persons and antispasmodic drugs are prescribed to relax the muscles. While this can improve mobility, it cannot reverse permanent polio paralysis.

India launched the Pulse Polio Immunization (PPI) programme in 1995 as a result of the WHO Global Polio Eradication Initiative. Under this programme, all children under five years are given two doses of Oral Polio Vaccine (OPV) in December and January every year until polio is eradicated. The campaign proved to be successful, and the incidence of

poliomyelitis in India has decreased dramatically.

The PPI was initiated with an objective of achieving hundred percent coverage under OPV. It aims to reach the unreached children through improved social mobilization, plan mop-up operations in areas where poliovirus has almost disappeared and maintain high level of morale among the public.

Key Components of Pulse Polio Immunization Programme

Polio has been eradicated from most of the world using several key strategies. Each of the following strategies is important components in the National Polio Eradication Programme:

- (a) Routine Immunization: Sustaining high levels of coverage with 3 doses of oral polio vaccine in the 0-1 year age group.
- (b) Supplementary Immunization Activities (SIAs): Simultaneous administration of oral polio vaccine to all children in the age group of 0-5 years, 4-6 weeks apart to interrupt wild poliovirus transmission and to increase immunity amongst children.

SIAs include:

- ❖ National Immunization Days (NIDs) when the entire country is covered
 - ❖ Sub National Immunization Days (SNIDs) when some states or parts of states are covered.
 - ❖ Mop-ups are conducted, as soon as possible after identification of the virus as an end game strategy to interrupt transmission.
- (c) Surveillance and investigation of cases of acute flaccid paralysis (AFP)
 - ❖ Surveillance data is used to identify areas of wild poliovirus transmission and to guide immunization activities.

Exercise

1. Volunteer a pulse polio immunization camp.
2. Prepare a checklist of the activities conducted at a pulse polio programme.

Short Answer Questions

1. What is pulse polio immunization?
2. What are the key components of pulse polio immunization programme?

Part A

1. Differentiate between the key components of pulse polio immunization programme.

Part B

Discussed in class the following:

1. What is pulse polio immunization?
2. What are the key components of pulse polio immunization?