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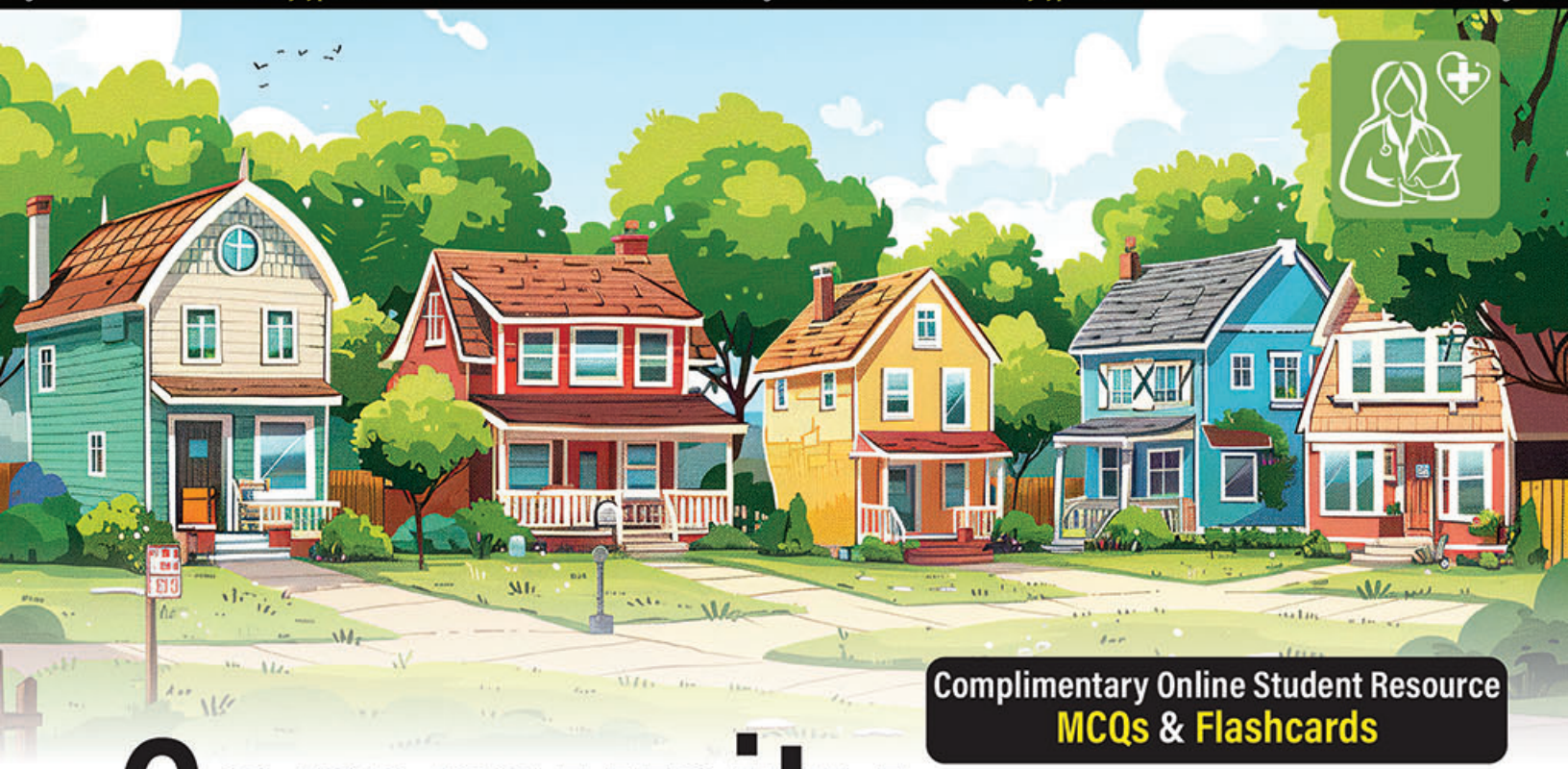

Complimentary Online Student Resource
MCQs & Flashcards

Community Health Nursing-II

As per the Revised INC Syllabus for BSc Nursing



Bandana
Taranpreet Kaur

Semester VII

JAYPEE

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Management of Common Conditions and Emergencies Including First Aid

UNIT 1

CHAPTER OUTLINE

- **Standing orders: Definition, uses**
- **Screening, diagnosing/identification, primary care and referral of:**
- **Gastrointestinal system:**
  - Abdominal pain
  - Nausea and vomiting
  - Diarrhea
  - Constipation
  - Jaundice
  - GI bleeding
  - Abdominal distension
  - Dysphagia and dyspepsia
  - Aphthous ulcers
- **Respiratory system:**
  - Acute upper respiratory infections: Rhinitis, sinusitis, pharyngitis, laryngitis, tonsillitis
  - Acute lower respiratory infections: Bronchitis, pneumonia and bronchial asthma
  - Hemoptysis, acute chest pain
- **Heart and blood:**
  - Common heart diseases: Heart attack/coronary artery disease; heart failure, arrhythmia
  - Blood anemia, blood cancers, bleeding disorders
- **Eye and ENT conditions:**
  - Eye: Local infections, redness of eye, conjunctivitis, stye, trachoma and refractive errors
  - ENT: Epistaxis, ASOM, sore throat, deafness.
- **Urinary system:** Urinary tract infections-cystitis, pyelonephritis, prostatitis, UTIs in children
- **First aid in common emergency conditions:**
  - **Review**
  - High fever, low blood sugar, minor injuries, fractures, fainting, bleeding, shock, stroke, bites, burns, choking, seizers, RTAs, poisoning, drowning and foreign bodies

LEARNING OBJECTIVES

After studying this chapter, the students will be able to:

- Define standing orders
- Describe the screening, diagnosing/identification, primary care and referral of common emergencies of gastrointestinal system
- Explain the screening, diagnosing/identification, primary care and referral of common emergencies of respiratory system
- Identify and manage the screening, diagnosing/identification, primary care and referral of common emergencies of heart and blood
- Discuss the screening, diagnosing/identification, primary care and referral of common emergencies of eye and ENT
- Describe the screening, diagnosing/identification, primary care and referral of common emergencies urinary system
- Provide the first aid management in some of the common emergency conditions

KEY TERMS

Standing orders: Standing orders are written protocols that authorize designated members of the healthcare team (e.g., nurses or medical assistants) to complete certain clinical tasks without having to first obtain a physician order

Gastrointestinal system: The organs that food and liquids pass through, including the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus

Abdominal pain: Abdominal pain, also known as stomach pain, is pain felt in the area between the chest and groin

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Nausea: A feeling of sickness or discomfort in the stomach that may come with an urge to vomit
Vomiting: The act of emptying the contents of the stomach through the mouth
Diarrhea: A condition where there are loose, watery, or liquid stools at least three times in a day
Constipation: A condition where a person has infrequent or uncomfortable bowel movement
Jaundice: Jaundice, also known as icterus or hyperbilirubinemia, is a condition that causes the skin, eyes, and mucous membranes to turn yellow
GI Bleeding: Gastrointestinal (GI) bleeding is any type of bleeding that starts in GI tract
Abdominal distension: Abdominal distension, also known as a swollen abdomen, occurs when the abdomen expands due to a build-up of air, fluid, or other substances
Dysphagia and dyspepsia: Dysphagia is difficulty swallowing, while dyspepsia is a term for pain or discomfort in the upper abdomen
Aphthous ulcers: Aphthous ulcers, also known as canker sores or mouth ulcers, are small, painful sores that appear on the inside of the mouth
Respiratory system: The respiratory system is a biological system that allows organisms to exchange gases
Acute upper respiratory infections: An acute upper respiratory infection (URI) is a short-term infection of the throat and nose caused by viruses or bacteria
Rhinitis: An acute upper respiratory infection (URI) is a short-term infection of the throat and nose caused by viruses or bacteria
Sinusitis: Sinusitis is inflammation of the sinuses and nasal cavity, and is also known as rhino sinusitis. It can be caused by a number of things
Pharyngitis: A condition in which the throat is red, swollen and sore
Laryngitis: Laryngitis is a condition that causes inflammation of the larynx, or voice box
Tonsillitis: Tonsillitis is inflammation of the tonsils, two oval-shaped pads of tissue at the back of the throat
Acute lower respiratory infections: An acute lower respiratory infection (ALRI) is an infection that affects the airways or alveolar sacs in the lungs
Bronchitis: Bronchitis is a condition that causes inflammation in the bronchial tubes of the lungs, leading to coughing and other symptoms
Pneumonia and bronchial asthma: Asthma and pneumonia are both lung diseases that can cause similar symptoms, but they are different conditions that require different treatments
Hemoptysis: Hemoptysis is cough up blood from lungs. It can be a sign of a serious medical condition
Acute chest pain: Acute chest pain can be a symptom of many serious conditions, including heart problems, lung conditions, and other issues
Heart attack: A heart attack occurs when an artery that sends blood and oxygen to the heart is blocked
Coronary artery disease: It is a condition that occurs when the arteries that supply blood to the heart become narrowed
Heart failure: A long-term condition that occurs when the heart cannot pump enough blood or oxygen to meet the body's needs
Arrhythmia: An irregular heartbeat that can cause the heart to beat too fast, too slow, or with an irregular rhythm
Blood anemia: A blood disorder that occurs when there are not enough healthy red blood cells or when they do not function properly
Blood cancers: Caused by abnormal blood cells that prevent blood from performing its normal functions, such as fighting infection
Bleeding disorders: Hereditary bleeding disorders occur due to the absence or deficiency of specific clotting proteins. The three most common hereditary bleeding disorders are hemophilia A (factor VIII deficiency), hemophilia
Conjunctivitis: Conjunctivitis can be caused by bacteria, viruses, fungi, or parasites. Symptoms include red eyes, discharge, itching, and watering redness of eye
Stye: A stye, also known as a hordeolum, is a painful, red, tender bump that forms on the edge of the eyelid
Trachoma: Trachoma is an eye infection caused by the bacterium Chlamydia trachomatis
Refractive errors: Refractive errors are a type of vision problem that makes it hard to see clearly. They happen when the shape of eye keeps light away from focusing correctly on retina (a light-sensitive layer of tissue in the back of your eye)
Epistaxis: Epistaxis is the medical term for a nosebleed, which is a loss of blood from the tissue inside the nose
ASOM: ASOM stands for acute suppurative otitis media, which is a bacterial infection that causes inflammation in the middle ear. It's most common in young children, especially during the winter
Sore throat: A sore throat is pain or irritation in the throat. It can be caused by a number of things
Deafness: Deafness is the complete loss of hearing. Which can be diagnosed by having a hearing test
Cystitis: Cystitis is a bladder infection that causes inflammation and is a common type of urinary tract infection (UTI)
Pyelonephritis: Pyelonephritis, also known as a kidney infection, is a bacterial or viral infection that causes inflammation of the kidney
Prostatitis: Prostatitis is a condition that causes inflammation of the prostate gland, which is a small gland in men that is located below the bladder and in front of the rectum
UTIs in children: A urinary tract infection (UTI) is a common bacterial infection in children that occurs when bacteria enter the bladder or kidneys
High fever: A high fever is a body temperature of 103°F (39.4°C) or higher. Fevers are a common way for the body to fight infection, but they can also be caused by other conditions
Low blood sugar: Low blood sugar, also known as hypoglycemia, occurs when the blood sugar level drops too low, usually below 70 mg/dL. It can be dangerous if left untreated
Fractures: A fracture is a break in a bone, which can be partial or complete
Fainting: Fainting, also known as syncope, is a brief loss of consciousness caused by a sudden drop in blood flow to the brain
Bleeding: Bleeding is the loss of blood from the body, which can be internal or external

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Shock: Shock is a life-threatening condition that occurs when the body's circulatory system fails, resulting in inadequate blood flow to the body's tissues
Stroke: A stroke is a medical emergency that occurs when blood flow to the brain is disrupted, causing brain cells to die
Bites: Bite reactions may include mild itching, discoloration, and swelling
Burns: Damage to the skin or deeper tissues caused by sun, hot liquids, fire, electricity or chemicals
Choking: Choking is when an object blocks a person's airway, making it difficult or impossible to breathe
Seizers: A seizure is a temporary period of abnormal electrical activity in the brain that can cause physical changes in behavior, muscle movement, or awareness
Poisoning: Poisoning is injury or death due to swallowing, inhaling, touching or injecting various drugs, chemicals, venoms or gases
Drowning: Drowning is a type of suffocation that happens when someone's nose and mouth are submerged in a liquid, making it difficult to breathe
Foreign bodies: A foreign body is something that is stuck inside you but is not supposed to be there.

STANDING ORDERS

Standing orders are protocols that allow patients to receive certain healthcare without a prescription from a doctor. They are approved by a qualified healthcare provider and can include tests, vaccines, clinical services, and more.

Definition

A standing order may be defined as an order for some form of treatment, medication, or procedure to be carried out by a nurse in the absence of a doctor.

- To be valid, it must be written, signed by a doctor and applicable to a specific patient or situation.
- Standing orders are written protocols that authorize designated members of the healthcare team (e.g., nurses or medical assistants) to complete certain clinical tasks without having to first obtain a physician order. This can improve efficiency by freeing physician to focus on more complex care
- Standing orders provide written authorization for nurses, medical assistants and other members of the healthcare team to complete certain clinical tasks without first obtaining a physician order.

Uses

- Standing order is useful in urgent or emergent scenarios in which immediate actions must be taken to support patient.
- It helps patient to have access to more efficient, timely services by permitting authorized staff to dispense or administer medication without reference to a medical practitioner.
- It permits nursing staff to work at higher level, gaining clinical independence in appropriate areas.
- It helps to ensure that staff are appropriately trained to carry out this role.
- Standing orders saves time and enhance great coordination among health team.
- It enhances customer/patient satisfaction.

SCREENING, DIAGNOSING/IDENTIFICATION, PRIMARY CARE AND REFERRAL OF GASTROINTESTINAL SYSTEM

ABDOMINAL PAIN

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. Pain is the most common sign due to which people visit health care.

- Pain management is vital part of care. The American Pain Society considered the phrase "pain: The 5th Vital Sign" to stress its importance and to increase the awareness among healthcare professionals.
- To investigate the chief complaints the mnemonic "OLD CART" is used:
  - O: Onset (setting, circumstance, rapidity or manner in which it begin.)
  - L: Location: Exact location where the symptom is felt in the body–radiation pattern.
  - D: Duration: How long the symptom has lasted: if intermittent, the frequency and duration of each episode.
  - C: Characterization: How the patient describes the symptom such as sharp pain, interference with activity, how it has changed or evolved over time; ask to describe a typical episode.
  - A: Alleviating and aggravating factors: What makes the symptom better or worse (e.g., medications, rest, activity, diet: associated nausea, fever and other symptoms).
  - R: Relieving factors (lying down, having bowel movement).

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- T: Treatment tried (pharmacologic and non-pharmacologic methods attempted and their outcomes.)
- S: Severity: How severe the symptom is, usually on a scale of 1–10

Alternatively, use mnemonic PQRST: Provocative/palliative factors, quality/quantity, region/radiation, severity, timing.



Obtain OLD CARTS data for all the major problems associated with the present illness as applicable. Clarify the chronology of the illness by asking questions and summarizing the history of present illness.

Abdominal pain is discomfort anywhere in belly region—between ribs and pelvis. Often abdominal pain known as "stomach pain" or a "stomach-ache."

It is a widely reported common chief complaint in the community. Location of pain can be assess with the help of help of **Figure 1.1**.

Causes

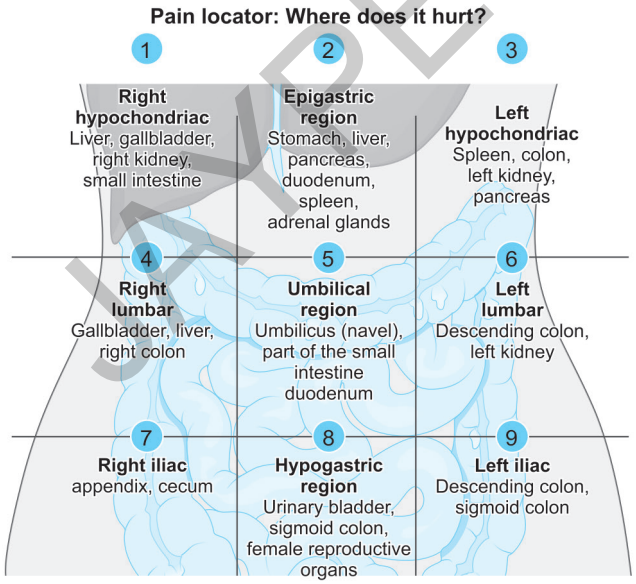
Abdominal pain has many causes. Stomach-ache may be coming from another organ in the abdomen, or from outside of digestive system. Seek medical care if abdominal pain is unexplained, persistent or severe.

Causes may include problems in the stomach (peptic ulcer), gallbladder stone (cholelithiasis), kidney stones (nephrolithiasis), pancreas (pancreatitis), appendix (appendicitis), etc.

Identifying the location of abdomen pain will help to prioritize the differential diagnosis **(Fig. 1.1)**.

Identify the Site of Pain

- **Pain in right hypochondrium (radiating to shoulder or interscapular area):** It could be because of gall bladder, diaphragmatic irritation. It could be due to problems in the base of lungs, (pneumonia), inflammation of liver (hepatitis), etc., also pneumonia presents with fever, cough, hemoptysis, etc. Hepatitis can have anorexia, nausea, vomiting, fever, etc., (prodrome) followed by yellow discoloration of eyes, skin, urine, etc., look for any skin infection.
- **Shifting toward midline (epigastric):** It could be related to stomach. The most common cause of pain in this area is gastritis. The causes could be due to intake of certain drugs, viral infections and simply acid related (ulcers) issues.
  Palpable and tender left lobe of liver, the common causes is hepatitis and amebic liver abscess. Severe pain radiating to back could denote pancreatic pain**.**
- **Pain in left hypochondrium:** Left hypochondriac pain presents with acute febrile illness or trauma could be due to problems of spleen or chest cage. However, most often, the left hypochondrial pain is not due to splenic causes but rather problems related to chest wall, lungs, stomach, etc.



Regions of abdomen:
RH: Right hypochondriac region
E: Epigastric region
LH: left hypochondriac region
RL: Right lumber region
LL: left lumber region
U: Umbilical region
RI: Right iliac region
LI: Left iliac region
SP: Suprapubic or hypogastric region

Fig. 1.1: Regions of abdomen.

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- **Pain in any side of lumber area**: If radiating to renal angle or groin is related to renal/ureteric causes. The common cause is renal stones. If the pain is toward the back, the cause may lie with vertebral column.
- **Pain in the central abdomen (umbilical area):** If points toward small intestine or peritoneal cavity. The common causes are infections caused by bacteria. Tenderness, rigidity and a sick looking patient may be due to peritonitis, requires referral for further management in time.
- **Pain in lower abdomen, either side are iliac fossae:** (Appendix and cecum on right colon on left and colon on left and adnexa on either side in women).
- **Suprapubic pain**: It could be related to urinary and uterine causes.

Management

- Find out the cause and treat it.
- Place the patient in the half sitting position with the head and shoulders supported. Bend the knees and support in this position.

Nonpharmacological Management

- **Reassure and comfort:** Make the person feel comfortable and reassured.
- **Hydrate**: Encourage the person to drink clear fluids, like water, to stay hydrated. Pain can occur when the gastrointestinal tract does not have enough fluid because the body needs water to digest food.
- **Avoid:** Alcohol, tea, and coffee, which can make the pain worse.
- **Apply heat**: Place a hot water bottle or heated wheat bag on the person's abdomen.
- **Avoid certain foods**: Advice the person to avoid spicy, fatty, fried, or greasy foods, as well as citrus, tomato products, and carbonated beverages.
- **Get rest:** Encourage the person to get plenty of rest.
- **Eat ginger:** It is a fragrant root that has been used to treat stomach upset, nausea, and vomiting.
- **Eat peppermint:** Peppermint is helpful for relieving stomach-aches. A cross between spearmint and water mint, peppermint contains the active compounds menthol and methyl salicylate, both of which have antispasmodic effects that calm an upset stomach, nausea, and cramping.
- **BRAT diet**: The BRAT diet is a therapeutic food plan based on four foods that make up the acronym "B-R-A-T," namely:
  - Bananas
  - Rice
  - Applesauce
  - Toast
- **Apple cider vinegar:** Apple cider vinegar can help to ease stomach pain associated with chronic gastritis. Apple cider vinegar also contains probiotics that can help normalize the bacterial environment of the stomach and ease bloating, stomach pain, and reflux caused by *Helicobacter pylori* (*H. pylori*) infection.
- **Exercise**: Exercise may help to relieve a stomach-ache, depending on the cause. Walking aids in digestion, promotes peristalsis, and helps to relieve constipation and trapped gas. Cycling and swimming also offer similar benefits.
- **Deep breaths:** Deep breathing exercises can also be helpful for easing a stomach-ache. Diaphragmatic breathing involves expanding the abdomen instead of the chest when breathing in.

Pharmacological Management

- **Take medication**: If appropriate, give the person mild painkillers like paracetamol or antacids to help reduce the pain.
- **Avoid aspirin** or anti-inflammatory drugs unless a doctor advises taking them.
- **Hyoscine butylbromide:** 10 mg tablet, 20 mg injection 3–4 times a day for colicky pains (uterine, intestinal, biliary).
- **Nonsteriodal anti-inflammatory drugs** (NSAIDs) such as diclofenac (intramuscularly as a dose of 50 mg or 75 mg) or ibuprofen is used.
- **Pentazocine** or **morphine** can be administered to manage emergency severe pain if patient is not responding to NSAIDs.
- **Pethidine**; 50–100 mg (equivalent to 5–10 mg of morphine)
- **Tamsulosin** or other alpha–blockers can be used for uterine colic.
- If pregnant women, morphine is better than NSAIDs.

Referral of the Patient

- In case of severe pain, patient not responding to treatment.
- If there is tenderness, rigidity, tachycardia, hypotension the patient should be immediately referred to the higher healthcare center.

NAUSEA AND VOMITING

Nausea and vomiting may be a part of signs and symptoms of stomach-related problems like gastritis or obstructions.

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These can be nonspecific features of any systemic illness. Vomiting with abdominal distension and constipation may be a symptom of intestinal obstruction that needs immediate hospitalization.

Diagnosis

- Nausea and vomiting may occur due to various reasons. Find the cause while starting the patient on symptomatic treatment.
- The various causes may be vertigo, some gastrointestinal (GI) problems, systemic illness, early pregnancy, renal failure, etc.
- Collect detailed history from the patient whether vomiting is accompanying with nausea, abdominal pain, diarrhea, food intake, certain drugs, etc.

Management

Many people are able to feel better with simple remedies, such as:

- Drinking beverages known to settle the stomach, such as ginger ale or chamomile tea.
- Avoiding caffeinated beverages that can upset stomach, such as cola or coffee.
- Drinking lots of clear liquids to stay hydrated.
- Eating small meals, which allow the stomach to digest foods more gradually.
- Eating a bland diet with foods that are easy for stomach to digest, such as plain rice and bananas.
- Avoiding foods that can upset stomach such as spicy, fried, and processed foods.



Many patients feel better by taking over-the-counter medications, such as antacids, pink bismuth, and motion sickness medication.

Pharmacological Treatment

- **Oral rehydration therapy**: Give oral rehydration solution which helps to replace lost minerals and body fluids, if nausea causes frequent vomiting.
- **Total parenteral nutrition**: Provide all the nutrition needed for the patient with special fluids through a catheter (thin, spaghetti-like tube) in vein. Total parenteral nutrition help if the intestines need time to heal or stomach has lost its ability to absorb nutrients from food taken by mouth.
- **Tube feeding**: By tube feeding specially formulated liquid nutrition is delivered directly to stomach through a special tube.
- **Medication**: Give antinausea and antianxiety medications which helps to relieve the symptoms
- If patient has pain give appropriate antispasmodic and analgesics.
- In case of dehydration admit the patient in hospital and administer IV fluids. Start oral fluid as soon as the patient can tolerate.
- Injection/Tablet ondansetron 8 mg IV/orally. Repeat 6/8 hourly if needed.
- Injection/tablet metoclopramide 10 mg IM, repeat after 6–8 hours if needed (or)
- Tablet domperidone 10 mg three times a day.
- In pregnancy avoid all drugs, if possible. Tablet/injection promethazine 26 mg is safe in the first trimester.
- Give tablet cyclizine 50 mg three times daily if there is history of motion sickness.
- **Domperidone (10 mg tablet, syrups):** 10–20 mg taken, 3–4 times a day before do not take more than 8 tabs in 24 hours. For children 0.25–0.5 mg/kg body weight taken 3–4 times a day before meals.
- **Levosulpiride (25 mg tablet and injection):** Can be taken three times a day before meal.

Health Education

- Avoid stale food and cut vegetables and fruits kept in open.
- Drink potable water only.
- Do not give NSAIDs for any vomiting/epigastric pain, specially if ulcer symptoms are present.
- Encourage patients to drink oral fluids frequently to prevent dehydration.

Referral

Refer the patient to the higher level health care if he/she presents with any of the following:

- Dehydration
- In shock
- Known diabetic or patient with glycosuria/hyperglycemia
- Septicemia
- Jaundice or unstable (simple acute viral hepatitis can be managed on OPD basis)
- Signs of intestinal obstruction, i.e., no stool, or flatus passed with distension, vomiting.
- Presenting with abdominal tenderness with guarding and rigidity.
- Vomiting with fresh blood (not responding to routine measures).

DIARRHEA

- Diarrhea means having a loose or watery stool (poop). It is self-limiting illness characterized by diarrhea, abdominal cramps, nausea and vomiting usually caused

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by viruses or bacteria (*Escherichia coli, Vibrio cholera, Staphylococcus aureus, Bacillus cereus,* etc.). Less commonly, patients present mainly with diarrhea with passage of mucus and/or blood in stools.

- Diarrhea can be a sign of a serious condition. It can cause to lose too much fluid (dehydration) or prevent from getting enough nutrients. In acute gastroenteritis, the major problem is dehydration and electrolyte imbalance. This needs attention and there is no need to go for etiological diagnosis.
- There are some common conditions in which people report diarrhea in the community clinics.

CHOLERA

Cholera is a bacterial disease spread through contaminated water and food. Cholera can cause severe diarrhea, dehydration, and even death if the disease goes untreated. People living in places with unsafe drinking water, poor sanitation, and inadequate hygiene are at highest risk of cholera.

Cholera can present with a range of clinical features, from no symptoms to severe, life-threatening illness:

- **Early symptoms:**
  - Usually appear 2–3 days after exposure and include
  - Watery diarrhea, described as "rice-water stools" with fishy odor
  - Vomiting
  - Leg cramps
  - Restlessness or irritability
- **Severe symptoms:** About 1 in 10 people develop severe symptoms, which can include:
  - Dehydration
  - Kidney failure
  - Shock
  - Coma
  - Death
- **Other symptoms:** Other symptoms include:
  - Abdominal discomfort
  - Excessive thirst
  - Weakness
  - Fatigue
  - Dry mucous membranes or dry mouth
  - Sunken eyes
  - Wrinkled skin
  - Hypersomnolence

Assessment of Patient

Obtain history of the patient especially from history of other cases in family, neighborhood, or common water sources.

Diagnosis

Stool culture to isolate *Vibrio cholerae*.

Treatment

- Check vital signs accurately. Check for dehydration.
- Aggressive volume repletion is the mainstay of treatment for cholera.
- Replace fluids orally, except in the case of severe volume depletion or shock.
- IV fluid is administered in case of severe dehydration.
- Notify the condition.
- Plenty of oral rehydration solution (ORS) to prevent dehydration and possible shock. ORS-2,200–4,000 mL. in the first 4 hours, plus as much water as they want in addition to ORS, till the symptoms of dehydration disappear.
- IV fluids (Ringer's Lactate) may be started as per requirement.
- **Referral:** If patient presents with pulse rate >100/minute, dry tongue, decreased urine output, sunken eyes, looks sick: Refer the patient to hospital.



Before referring the patient, insert an IV cannula and hydrate well with Ringer's lactate, as a lifesaving measure.

Prevention

Hand washing with soap before handling food and after toilet use.

- Advice to drink boiled cooled water.
- Use of safe latrines.
- **Referral:**
  - Refer severely ill patients like shock, anuria and altered sensorium.
  - Follow the referral policies of the government or agency.

BACILLARY DYSENTERY

Bacillary dysentery is a gastrointestinal disease caused by bacterial infection. Some of the most common bacteria that lead to bacillary dysentery are:

- Shigella, leads to shigellosis.
- Salmonella causes salmonella poisoning (salmonellosis).
- Campylobacter causes campylobacteriosis.
- *Escherichia coli*, leading to *E. coli* infection.

Assessment

Assess the patients for following symptoms which may range from mild to severe, including:

- Diarrhea containing blood or mucus
- High fever

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- Painful stomach cramps
- Nausea and vomiting
- Toxic appearance
- Sometimes associated with convulsions
- Lethargy

Diagnosis and Tests

A healthcare provider can diagnose bacillary dysentery with a stool culture. This type of bacteria culture test takes a sample of poop and tests it for the presence of certain bacteria.

Management and Treatment



Many people with bacillary dysentery do not need medical treatment. The symptoms often get better in a few days to a week.

Avoid antidiarrheal medications, which can worsen symptoms.

- Drink plenty of fluids to prevent dehydration (common with diarrhea).
- Isolate themselves from other people for at least two full days after the last episode of diarrhea.
- Take over-the-counter medications to reduce pain and fever.

Treatment

- Antibiotics; tab ciprofloxacin 500 mg 12 hourly for 5 days, (contraindicated in pregnant women)
- IV fluids.
- Less often, blood transfusion.

Follow-up

- Follow-up after 48 hours/anytime in case of any problem.
- Reassess for checking the relief of symptoms.
- In case of no improvement, choose other first-line antibiotic or metronidazole.
- **Referral:** Refer the following patients for further management:
  - If no response to treatment for 48 hours.
  - Malnourished patient
  - Severely dehydrated patients
  - Patients with co-morbidities.

Health Education

- Practice good hygiene. Wash hands thoroughly with soap and warm water after going to the bathroom and before handling food.
- Wash hands with soap and warm water in all cases of before and after handling sick babies and children.
- Wash soiled garments and linens with detergents or soap and dry under sun.
- Use safe latrines.

Important takeaways:

- Do not share personal items with other people, such as towels.
- Do not use water unless it's sterile (free of germs).
- Clean toilets, sinks and handles thoroughly.
- Wash your laundry in the hottest water possible.
- Stay away from other people who are ill.
- Thoroughly cook all food.
- Wash all fresh fruits or vegetables with clean water, or peel before eating.

AMEBIC DYSENTERY

Amoebiasis, or amoebic dysentery, is a gastrointestinal illness that develops when an organism called a parasite enters your intestines. The illness may cause diarrhea, nausea, stomach cramps and fever. It is caused by a parasite called *Entamoeba histolytica (E. histolytica)*.

Assessment

Assess diarrhea for the following:

- Presence of blood in stool
- Presence of mucus in stool
- Any unpleasant odor.
- Usually, fever may be present.
- Patient may have constipation and flatulence alternatively or both together.
- Fresh stool examination (three specimens) will confirm presence of live forms or cysts.

Management

- Rehydrate the patient using oral and/or IV fluids.
- Provide nutritional support.
- Prescribe metronidazole.

Referral

- Patients are referred for laboratory confirmation of the diagnosis.
- Failure to respond to treatment and patients with worsening conditions are referred.



Chronic diarrheas can be managed on OPD basis with investigations.

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CONSTIPATION

Constipation is a condition in which a person has uncomfortable or infrequent bowel movements.

- A person is considered to be constipated when bowel movements result in passage of small amounts of hard, dry stool, usually fewer than three times a week.
- Normal stool elimination may consist of having a bowel movement three times a day or three times a week; it depends on the person.

Symptoms

The following are the most common symptoms of constipation:

- Difficult and painful bowel movements
- Bowel movements fewer than three times a week
- Feeling bloated or uncomfortable
- Feeling sluggish
- Abdominal pain

Causes of Constipation

- Insufficient dietary fiber
- Physical inactivity
- Suppression of defecatory urges occurring at inconvenient moments
- Prolonged travel
- Change in environment
- Old age
- Pregnancy
- Chronic use of enema and laxatives
- Secondary causes may include neurological, hormonal, colonic, malignancy, depression.
- Psychogenic disorders
- Cancer of bowl

Diagnosis

Diagnosing constipation may include:

- **Medical history:** Take medical history of the constipation, including duration of symptoms, frequency of bowel movements, and other information to assess the cause of the constipation.
- **Physical examination:** A physical examination for a rectal examination (DRE), in which the doctor inserts a gloved, lubricated finger into the rectum to evaluate the tone of the muscle that closes off the anus.

Other Diagnostic Tests May Include

- **Abdominal X-ray**
- **Lower GI (gastrointestinal) series (also called barium enema):** A fluid called barium (a metallic, chemical, chalky, liquid used to coat the inside of organs so that they will show up on an X-ray) is given into the rectum as an enema. An X-ray of the abdomen shows strictures (narrowed areas), obstructions (blockages), and other problems.
- **Colonoscopy:** The colonoscope allows to see the lining of the colon, remove tissue for further examination, and possibly treat some problems that are discovered.
- **Sigmoidoscopy:** A short, flexible, lighted tube, called a sigmoidoscope, is inserted into the intestine through the rectum. The scope blows air into the intestine to inflate it and make viewing the inside easier.
- **Anorectal function tests:** These tests diagnose constipation caused by an abnormal functioning of the anus or rectum.

Assessment

- Collect detail history and assess the patient.
- Identify any possible causative factors of constipation from history.
- Assess for severity of problem
- Elicit information on the measures tried by the patient and their outcome.
- History of acute constipation, vomiting, no passage of wind and motion and sick look of the patient are the warning signs of gastrointestinal tract (GIT) obstruction.
- Refer such patients immediately to higher level health care facility for further management.

Nonpharmacological Treatment

- **Diet modifications:** A diet with 20–35 g of fiber daily helps in the formation of soft, bulky stool. While adding foods such as beans, whole grains, bran cereals, fresh fruits and vegetables is helpful in adding fiber to the diet. Limiting foods such as ice cream, cheeses, meats, and processed foods, which contain little or no fiber can also be helpful.
- Advise to increase intake of fluid with decrease in consumption of caffeinated drinks.
- Retraining of bowels, e.g., avoiding suppressions of urge to defecate, making a regular habit.
- Bulk forming agents like " ispaghula husk" or " psyllium seeds" also help to relieve mild constipation.
- Regular physical exercise such as walk for 0.5–1 hours daily and abdominal exercises.
- Reassurance is important because many patients with normal stools and in pregnancy feel that they are constipated.

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Pharmacological Management

(Usually required for moderate to severe constipation)

- **Laxatives:** Laxatives may be prescribed after diet when lifestyle changes have failed to be effective.
- Tablet bisacodyl 5–15 mg (1–3 tablets) orally once a day

  Or

  10 mg (1 suppository) rectally once a day as needed.

  Or

  Lactulose solution 15–20 mL orally at night

  Or

  Liquid paraffin 15–20 mL twice or thrice daily

  Or

  Suspension magnesium sulphate 15–20 mL at night

  Or

  Tablet sodium picosulfate 10 mg at night

  Or
- Isotonic polyethylene glycol (PEG)-electrolyte solution 125–250 mL, any of these may be given 2–4 times a week. Some patients may require treatment for several weeks or months.
- Tablet mosapride 5 mg two or three times a day. In some patients may be required for several weeks.
- Phosphate enema to be whenever necessary in patients having acute problem with severe constipation or subacute intestinal obstruction.
- **Referral**:
  - In patient continues to have severe constipation with worsening symptoms, refer the patient to rule out secondary causes.
  - Recent unexplained consumption in an elderly person whose bowel habits were always regular should be referred for further investigation.
  - Acute constipation where patient is vomiting, has not passed wind or stool, appears ill indicative of GIT obstruction refer immediately to a higher center.

Patient Education

- Do not use purgative frequently to treat constipation since it may become a habit.
- Do not use purgatives to treat constipation with fever and following heart attack. A suppository or simple enema is preferred.
- In pregnancy, ispaghula is preferred.



Biofeedback: Biofeedback is used to treat chronic constipation caused by anorectal dysfunction. This treatment retrains the muscles that control release of bowel movements.

JAUNDICE

Jaundice is a condition that causes the skin, whites of the eyes, and mucous membranes to turn yellow **(Fig. 1.2)**. It's caused by a buildup of bilirubin in the blood, which can be a sign of increased production or impaired excretion of the yellow chemical.

- Jaundice of recent onset with anorexia, nausea, vomiting may be typical of acute viral hepatitis, the management is with normal diet and symptomatic domiciliary care.
- Jaundice patients who presents with fever, vomiting, altered sensorium or bleeding need care specialty hospitals. Sometime patients with jaundice may present with severe right hypochondriac pain. This may be a result of gallstones and should be treated after proper investigations. Patients who are with asymptomatic jaundice to be evaluated further to diagnose hepatobiliary malignancy.
- Viral hepatitis is an infection of liver caused by hepatitis A, B, C, D and E viruses.

Clinical Features of Viral Hepatitis

- Fever, chills, headache
- Fatigue
- Generalized weakness
- Body pain
- Anorexia
- Nausea
- Vomiting
- Dark urine
- Jaundice

Management

The treatment for acute and chronic hepatitis is different.
Acute viral hepatitis: Adequate rest, maintaining adequate intake of fluids and balanced diet and symptomatic treatment.



Fig. 1.2: Symptoms of jaundice.

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Chronic viral hepatitis: Medications to eradicate the virus and measures to prevent further liver damage.

GASTROINTESTINAL BLEEDING

Definition

Upper gastrointestinal (GI) bleeding is defined as bleeding from any site from pharynx to duodenojejunal (DJ) flexure or more specifically upto ligament of Teritz and usually presents as hematemesis.

- GI bleeding is a symptom of a disease or condition, rather than a disease or condition itself.
- Acute GI bleeding is sudden and can sometimes be severe.
- Chronic GI bleeding is slight bleeding that can last a long time or may come and go.
- **Upper gastrointestinal (GI) bleeding (hematemesis):** It is a serious problem and the various causes are esophageal, gastric, duodenal ulcer, varices, tumors, vascular lesions, etc.

Signs and Symptoms

- Hematemesis or melena
- Coffee ground gastric aspirate
- Pain
- Hypovolemic shock
- Tachycardia
- Hypotension

Assessment

The signs of significant bleed are:

- Blood pressure (BP) will be <90 mm Hg, heart rate will be >100 beats/min
- Skin will be pale, diaphoretic and cold and clammy to touch.
- **Cardiovascular:** Weak and thread pulse, capillary refill time will be more than 3 seconds.

Management

Acute GI bleed is an emergency that requires most urgent attention and active management. Immediate assessment to know severity of bleeding.

- **Mild:** Patient has tachycardia but BP is maintained
- **Moderate:** Tachycardia with postural hypotension, tachypnea, sweating, cold skin.
- **Severe:** Hypotension and shock.
- Check pulse and measure BP as soon as the patient arrives the facility.
- Assess the airway, breathing and circulation. Intubate the patient to protect the airway. This would help aspiration of blood leading to respiratory problems.
- Administer oxygen and start cardiac monitoring.
- Start IV lines using two large-bore IV cannulas. Administer Ringer's Lactate solution to maintain mean arterial pressure at 60 mm Hg or higher. Using normal saline for patients with liver disease may lead to ascites.
- Watch respiratory status closely while administering fluids; elevate the head end of the bed.
- Collect blood sample for hematocrit, hemoglobin (Hb), coagulation studies and typing and cross matching for packed red blood cells (RBC's). Arrange at least six units of packed cells to manage any significant bleeding.
- Insert a nasogastric tube to drain the stomach contents and other measures include rapid fluid resuscitation and gastric lavage.
- Catheterize the patient and monitor the urine output.
- Elicit information from conscious patient about previous history of bleeding, dyspepsia, jaundice and intake of alcohol and drugs.
- Refer the patient for further management when his vitals become stable.

Pharmacological Management

Injection ranitidine 300 mg IV if nonvariceal upper GI bleed suspected (patient with known peptic ulcer or reflux disease, taking NSAIDs)

If variceal bleed is suspected (chronic alcoholic, jaundice, splenomegaly, dilated abdominal veins, ascites, encephalopathy), injection octreotide 50 µg IV immediately followed by 25 µg/hr infusion.

Or

Injection terlipressin 1–2 mg IV given 4–6 hourly.

Or

Injection vasopressin 20 IU in 200 mL of normal saline over 20 minutes. Maintenance dose is given as 100 units in 50 mL of 5% dextrose given as 0.2–0.9 units/min (6–27 mL/hr) in the next 24 hours, avoid in ischemic heart disease (IHD).

Nitroglycerin drip can also be used along with this, if systolic BP is >90 mm Hg.

- In patients with major peptic ulcer bleeding (active bleeding or nonbleeding visible vessel) following endoscopic hemostatic therapy, injection omeprazole or pantoprazole 80 mg IV bolus followed by 8 mg/hr infusion for 72 hours.
- **Follow-up**: Consequent follow-up is vital because fundamental cause of the disease may need long-term medicines to prevent further occurrence of GI bleeds.

Bleeding per Rectum (Hematochezia)

- Generally caused by anorectal problems and it is apt to approach anorectal clinician for diagnosis.

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- The most common diseases that cause bleeding are the hemorrhoids and fissures. Other important causes are amebic, bacillary and infective diarrhea.

Important takeaways:
The most common cause of chronic diarrhea with blood is ulcerative colitis and it requires colonoscopy and biopsy for the confirmation of the disease. Any elderly person with blood stained stools to be evaluated for malignancy.

ABDOMINAL DISTENSION

Abdominal distension, also known as a swollen abdomen, is a condition where the abdomen expands due to a build-up of fluid or air. It's often accompanied by a feeling of bloating or being trapped with gas or digestive contents.

- Acute abdominal distension requires immediate evaluation and diagnosis to provide further management. Any patient who presents with acute abdominal pain and toxic symptoms could be suspected or having intestinal perforation or peritonitis. In these conditions, abdomen will show rebound tenderness. Rebound tenderness means the irritated tissues that line the abdominal cavity.
- In case of intestinal obstruction, patient will complain of constipation, pain and vomiting. Subacute to chronic distension mostly occur due to ascites.
- Give symptomatic management and refer the patient to specialized care for further management.

DYSPHAGIA AND DYSPEPSIA

DYSPHAGIA

Dysphagia is the medical term for difficulty swallowing.

- **Causes**: It can be caused by a number of issues, including:
- **General causes:** Myasthenia gravis, bulbar palsy, hysteria, etc.
- **Local causes**:
  - Intraluminal (e.g., foreign body)
  - Intramural (e.g., achalasia, esophagitis, esophageal strictures, Plummer–Vinson syndrome, pharyngeal pouch, benign neoplasm, malignant neoplasm)
  - Extra luminal (e.g., retrosternal goiter, mediastinal tumor, mediastinal lymphadenopathy, aortic aneurysm, hiatus hernia)
- **Esophageal issues:** Narrowing of the esophagus or problems with the muscles that move food and liquids through the esophagus
- **Oropharyngeal issues**: Problems getting food from the mouth into the upper esophagus **(Fig. 1.3)**.

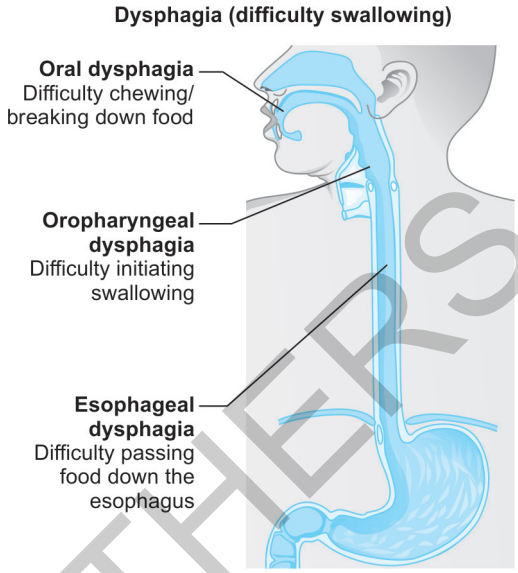

Fig. 1.3: Symptoms of dysphagia.

- **Nervous system conditions**: Conditions that damage the brain and nerves, such as stroke, Parkinson's disease, or dementia
- **Inflammation or cancer**: Inflammation or cancer of the mouth or esophagus

Symptoms of Dysphagia Include (Fig. 1.3)

- Coughing or choking while eating or drinking
- Regurgitating food, sometimes through the nose
- Feeling like food is stuck in your throat or chest
- Persistent drooling
- Pain while swallowing

Management

Give symptomatic management and refer the patient to the higher center for further management. Specific treatment is provided based on cause.

Nonpharmacological Management

- Only liquids or semisolid diet is provided considering the level of severity of dysphagia.
- Psychotherapy is part of treatment for those patients who are depressed.

Pharmacological Management

- Get magnesium hydroxide and aluminum hydroxide with activated dimethicone (250 mg + 250 mg + 50 mg/mL) 20 mL 6 hourly

  Or

  Tablet ranitidine 150 mg two times a day

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DYSPEPSIA

Dyspepsia is the medical term for indigestion, refers to discomfort or pain in the upper abdomen, often after eating or drinking. It is not a disease but a symptom of gastroesophageal reflux disease (GERD) and other conditions.

Dyspepsia is a nonspecific group of symptoms considered a functional disease of upper GIT.

Symptoms

Aggravated by eating:

- Pain relating to the digestive system
- A burning sensation in the digestive tract
- Feeling too full after eating
- Feeling full too quickly while eating
- May experience bloating and nausea
- Loss of appetite
- Regurgitation
- Burping



Dyspepsia presents as one of the symptoms in some diseases like gastroesophageal reflux disease, irritable bowel syndrome, gastric ulcer or duodenal ulcer, lactose intolerance, cholecystitis, etc.

Dyspepsia presents as one of the symptoms in some diseases like gastroesophageal reflux disease, irritable bowel syndrome, gastric ulcer or duodenal ulcer, lactose intolerance, cholecystitis, etc.

Diagnosis

In addition to routine investigations specific tests like thyroid profile, ultrasound abdomen and upper GI endoscopy are carried out to diagnose the structural causes.

Pharmacological Treatment

Depends upon the causative factors:

- Capsule omeprazole 20 mg once a day, 30–45 minute before breakfast for 4–6 weeks or tablet ranitidine 150 mg twice a day 45 minutes before breakfast and dinner for 4–6 weeks. Antacids 2–3 teaspoons or 2 tablets (chewable).
- **For patients with dysmotility symptoms**
- Tablet domperidone 10 mg three times a day 30 minutes before breakfast, lunch and dinner.
- Anti *H pylori* treatment is recommended for those on long-term NSAIDs or those with duodenal/gastric ulcers.

Health Education

- Avoid spicy foods, tea, coffee and fried items.
- No to alcohol and smoking.
- Avoid unnecessary consumption of NSAIDS
- Follow regular meal times
- Give 2–3 hours of gap between meal and going to bed
- Take small frequent meals
- Avoid late night snacks

APHTHOUS ULCERS

These are rounded painful ulcers with yellowish-gray fibrinoid center. Even after successful treatment, recurrences are common.

Diagnosis

It is important to determine the causes which are contributing to the disease. The various causes include:

- Recurrent trauma from tooth/denture.
- Sometime aphthous ulcers **(Fig. 1.4)** can be the sign of systematic diseases. It is essential to establish a correct diagnosis to determine suitable therapy.

Nonpharmacological Treatment

- Maintain oral hygiene
- Rinse the mouth with water after eating anything.
- Avoid spicy food.
- Use soft brush and straw for drinking.
- Take plenty of green leafy vegetables.

Pharmacological Treatment

Rule out secondary causes like malabsorption syndrome, inflammatory bowel disease, Behcet's disease and recurrent trauma from tooth/denture and treat accordingly.

- Symptomatic treatment with application of any gel containing local anesthetic before taking meals.
- Only in severe cases with large multiple ulcers.

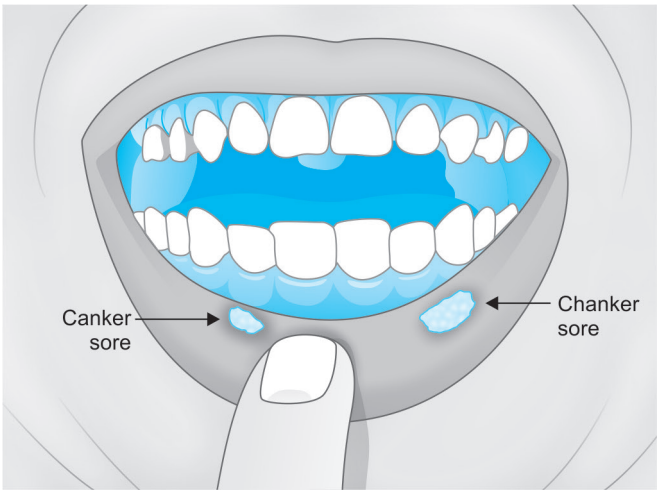

Fig. 1.4: Aphthous ulcers.

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- Pellets hydrocortisone 5 mg to be kept on the ulcer and sucked every 4 hours for 3–5 days. Or tablet prednisolone 0.5 mg/kg/day in a single dose for 3–5 days.

RESPIRATORY SYSTEM

ACUTE UPPER RESPIRATORY TRACT INFECTIONS

The upper respiratory tract infections (URTIs) are viral or bacterial infections which can occur in any part of the upper respiratory tract, like trachea, larynx, pharynx, sinuses, etc.

Some of the common acute upper respiratory infections (URIs) that require prompt care are: Catarrh (rhinitis), common cold (viral rhinitis), sinusitis, pharyngitis, laryngitis and tonsillitis.

Assessment

It is important for the community health nurse (CHN) to have knowledge on screening for the symptoms of URTIs.

Common Signs and Symptoms of URIs

- Watering of nose
- Nasal congestion
- Sneezing and cough
- Postnasal drip
- Sore throat
- Headache
- Breathing difficulty
- Fever
- Fatigue

Upper respiratory tract infections are mostly transmissible. They spread through respiratory droplets from sneezing, coughing, etc.

Nonpharmacological Measures

- **Ginger tea**: It is antibacterial and coughs expectorant. Boil 1–2 teaspoons of freshly ground ginger with water for 10 minutes, filter and add some honey. Drink it warm.
- Gargling throat with salt water 2–3 times a day help in relieving throat discomfort and remove any mucus or phlegm.
- Steam inhalation twice a day is helpful in loosening the trapped mucus.
- Taking I tablespoon of honey, 3 times daily controls cough and soothes mucus membrane.
- Drinking garlic and lemon juice mixture in water is a natural remedy for URl.
- Taking half a teaspoon of turmeric powder in warm milk twice a day is anti-infective.
- Putting 2 drops of eucalyptus oil in a clean cloth and sniffing it will reduce nasal congestion.
- Take adequate rest.
- Avoid physical and mental stress.
- Eat well balanced diet.
- Drink vitamin-C containing fruit juices.
- Maintain hand hygiene.
- Use separate cloth for sneezing
- Drink plenty of water to replace fluid loss.
- Advice not to take alcohol, caffeinated beverages and stop smoking as it may worsen the irritation in the bronchial tubes.
- It also affects the immune system adversely.
- **Referral**: Refer the patient for further diagnostic investigations and appropriate treatment if he or she does not respond to nonpharmacological measures/ home remedies.

CATARRH (ALLERGIC RHINITIS)

- Catarrh is often associated with allergic rhinitis, but it is more accurately described as a symptom rather than a condition itself. Vasomotor rhinitis is a non-allergic form of rhinitis that shares similar symptoms with allergic rhinitis, such as nasal congestion and mucus production.
- Catarrh refers to the excessive build-up of mucus in the nose or throat, often due to inflammation of the mucous membranes. This reaction can be triggered by infections (like a cold), allergens (such as pollen or dust), or irritants.
- Common triggers include: Cigarette smoke, air pollution, strong odors like perfumes, alcohol, spicy foods, changes in weather, emotional stress, etc.

Assessment

Assess the patient for signs and symptoms of Catarrh.

Possible Signs and Symptoms of Catarrh (Fig. 1.5)

- Generalized fatigue
- Body aches
- Pain in the face
- A blocked or "stuffy" nose
- A running nose or mucus that runs down the back of throat, sore throat
- Irritable cough
- Headache
- Loss of smell or taste
- An occasionally mild hearing loss.
- A crackling sensation in the middle ear.

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