Guidelines for Admission in Common Fevers and Infectious Diseases.

Any of the following criteria are to be met for admission in a hospital and in-hospital treatment:

Febrile Illness Clinical key pointers for Admission:

- Fever >= 38.3'C or >=101'F for more than 2 days
- Any Fever for more than 5 days – not responding to OP treatments – worsening symptoms
- Along with any or all of following: Headache, Dizziness, Pain in Muscles and Joints, Weakness
- Patients presenting with AFI and signs of organ dysfunction and symptoms/signs suggestive of sepsis, like
    - Grossly deranged Liver function tests, Renal Function tests,
    - Patches in lungs / ARDS
    - Deranged CNS – having: drowsiness of altered sensorium / hypotension or cardiac suppression / repeated vomiting or loose stools with signs of dehydration / not able take orally with signs of dehydration / oliguria)
- Other signs such as those mentioned below can also justify admission
    - Severe Hypotension -
    - Toxic look
    - Febrile Seizures
    - Petechial or purpuric rash
- Elderly patients more than 65 years of age with comorbid conditions
- Respiration: respiratory rate more than 22/min; cyanosis; arterial oxygen saturation less than 92% on room air
- Circulation – blood pressure – systolic less than 100mm Hg; capillary refill > 3 secs
- Very high WBC count(>12,000/cmm) – indicating septicaemia or sepsis
- Hemophagocytic Lymphohistiocytosis (HLH)

Ref:

- IMA guidelines
- Bhargava A, Ralph R, Chatterjee B, et al. Assessment and initial management of acute undifferentiated fever in tropical and subtropical regions. BMJ. 2018;363: k4766. Published 2018 Nov 29. DOI:10.1136/bmj. k4766

*Antibiotic use – As per the approved antibiotic policy of the hospital

Admission Criteria for Fever in Children

- Seizures, difficulty to stay awake, and stiff neck
- Toxic appearance, listlessness
- Lethargy
- Irritability
- Dehydration
- Severe malnutrition
- Toxic appearance
- Inability to feed
- A 14-day illness without a confirmed diagnosis

Other Red Flags:

Additional signs that warrant immediate attention and potential hospital admission include:

- Bleeding: red spots or patches on the skin, bleeding from nose or gums, vomiting blood, black stools, heavy menstruation/vaginal bleeding - Petechiae or purpura
- Frequent vomiting
- Severe abdominal pain
- Drowsiness, mental confusion, or seizures
- Pale, cold, or clammy hands and feet
- Difficulty breathing - Respiratory distress
- Signs of dehydration
- Lethargy or unconsciousness
- Sunken eyes
- Slow skin pinch recoil
- Red maculopapular rash: May be associated with conditions like measles, rubella, or dengue
- Fine generalized maculopapular rash with systemic dysfunction/shock: Could be indicative of meningococcemia

Ref –

- IMA guidelines
- Schellack N, Schellack, G. An overview of the management of fever and its possible complications in infants and toddlers. SA Pharm J. 2018. 85. 26–33

Admission Criteria for Dengue fever:

- ADMISSION CRITERIA
    - Persistent vomiting
    - Dehydration
    - Abdominal tenderness
    - Hepatomegaly

- Ascites
- Oedema
- Mucosal bleed

- blood in vomit or stool
- pale and cold skin
- Respiratory distress
- Pleural effusion
- Hypotension/shock - drop in Systolic BP of ≥20mmHg and diastolic of ≥10 mmHg indicates postural hypotension
- Oliguria
- Rising Haematocrit> 60%
- Drastic rapid decrease in platelets or any platelet count with bleeding symptoms
- Ascites/ pleural effusion / hypotension / polyserositis / dengue haemorrhagic fevers / dengue shock
- Dengue haemorrhagic fever – thrombocytopenia – mucosal and gastrointestinal bleeds – rise in haematocrit
- Dengue shock syndrome – weak pulse – hypotension
- Expanded dengue syndrome – encephalitis – myocarditis – hepatitis – renal failure – ARDS – haemophagocytosis
- Dengue Haemorrhagic Fever (DHF) with the following criteria:

	Grade	Symptoms/signs	Laboratory finding
DHF	I	Headache , Retro-orbital pain , Myalgia , Arthralgia + positive TOURNIQUET TEST or signs of plasma leakage	Thrombocytopenia : Platelet count less than 100,000/cu.mm. Haematocrit rise 20% or more
DHF	II	Above signs + evidence of spontaneous bleeding in skin or other organs (black tarry stools, epistaxis , bleeding from gums etc) and abdominal pain	Thrombocytopenia : Platelet count less than 100,000/cu.mm. Haematocrit rise 20% or more
DHF	III	Above signs + circulating failure (weak rapid pulse, pulse pressure less than 20mmHg or high Diastolic pressure, hypotension with presence of cold clammy skin and restlessness)	Thrombocytopenia : Platelet count less than 100,000/cu.mm.

			Haematocrit rise 20% or more
DHF	IV	Profound shock with undetectable blood pressure or pulse	Thrombocytopenia : Platelet count less than 100,000/cu.mm. Haematocrit rise 20% or more

- Metabolic acidosis/ hyperpnoea/ Kussmaul's breathing
- Oliguria or anuria
- Aspartate aminotransferase (AST) or alanine aminotransferase (ALT) ≥1000 units/L
- Impaired consciousness (GCS < 9)
- Febrile seizures in young children •
- Nervous System - Encephalopathy - Encephalitis/aseptic meningitis • Intracranial haemorrhages/thrombosis • Subdural effusions • Mononeuropathies/polyneuropathies/Guillane-Barre Syndrome • Transverse myelitis
- Gastrointestinal system : Hepatitis/fulminant hepatic failure • Acalculous cholecystitis • Acute pancreatitis • Hyperplasia of Peyer's patches • Acute parotitis
- Kidney : Acute renal failure • Hemolytic uremic syndrome(HUS)
- Heart -Conduction abnormalities • Myocarditis • Pericarditis
- Lungs - Acute respiratory distress syndrome • Pulmonary haemorrhage
- Musculoskeletal system - Myositis with raised creatine phosphokinase (CPK) • Rhabdomyolysis Lymphoreticular system •
- Infection associated haemophagocytic syndrome - Haemophagocytic lymphohistiocytosis (HLH) • Idiopathic thrombocytopenic purpura (ITP) • Spontaneous splenic rupture • Lymph node infarction
- Eye - Macular haemorrhage • Impaired visual acuity • Optic neuritis

- INDICATIONS FOR PLATELET TRANSFUSION
  - For adults: platelets < 40000 and with bleeding symptoms
  - Platelet count less than 10000.
  - Prolonged shock with coagulopathy]
  - Systemic massive bleeding

Ref:

- IMA guidelines
- National Vector Control Board Guidelines (followed by AIIMS)/ Ministry of Family Health & Welfare - Guidelines – 2008 and 2023
- WHO guidelines

- The Indian Society of Critical Care Medicine Tropical Fever Group, Singhi S, Chaudhary D, et al. Tropical fevers: Management guidelines. Indian J Crit Care Med. 2014;18(2):62-69. DOI:10.4103/0972–5229.126074
- Guidelines for management of co-infection of COVID-19 with other seasonal epidemic prone diseases. Available at: https://www. mohfw.gov.in/pdf/GuidelinesformanagementofcoinfectionofCOVID19withother seasonalepidemicpronediseases.pdf. Accessed on: 03 September 2021
- National Health Mission. Guidelines for management of dengue fever. Available at: https://www.nhm.gov.in/images/pdf/ guidelines/nrhm-guidelines/stg/dengue.pdf. Accessed on: 03 September 2021

Admission Criteria for Pneumonia in Children

- Important Signs
  - Cough , cold with or without Fever, that includes fast breathing and chest indrawing
  - **Along with** inability to drink or persistent vomiting or convulsions or lethargy/unconscious, Stridor or severe Malnutrition
  - **Admission justified in severe pneumonia as per ICMR protocols**

Ref:

https://www.icmr.gov.in/icmrobject/uploads/STWs/1725952336_paediatrics_severe_pneumonia.pdf

Admission Criteria for Pneumonia in Adult

- Breathlessness, Pleuritic Chest pain, Malaise, arthralgia, Hemoptysis
- Criticality parameters – Respiratory Rate - >30/min, Abdominothoracic respiration, Cyanosis, Inability to speak long sentences
- ARDS
- Breathlessness at rest or on exertion
- Oxygen saturation less than 92%
- With COPD or Interstitial lung disease or any restrictive lung disease
- Admission – Score 1 to 4 are advised admission as per ICMR protocols

Ref:

https://www.icmr.gov.in/icmrobject/uploads/STWs/1725963734_pulmonology_acute_respiratory_infections.pdf

Admission Criteria in Diarrhea/Acute Gastroenteritis

- >3 loose or watery stools per day or blood in stool (Dysentery)
- **And** any 2 of the following signs
  - Lethargy/Unconscious
  - Sunken eyes
  - Not able to Drink/Drinking poorly
  - Skin pinch – goes back slowly

Admission Criteria for Hepatitis / other Jaundice

- INR >1.5 or rising INR
- Altered sensorium
- Bleeding
- Recurrent vomiting with dehydration
- Hypotension (Systolic BP<90 mmHg)

Ref:

https://www.icmr.gov.in/icmrobject/uploads/STWs/1725952338_paediatrics_diarrhea.pdf

Admission criteria for Acute Rhinosinusitis /URI

- Known Diabetic /Immunocompromised
- Suspicion of Complications like
  - Orbital involvement (Periorbital edema/Erythema, Displaced globe, Ophthalmoplegia, Visual Disturbances)
  - Meningitis/ Altered Sensorium
  - Frontal Fullness
- Non Resolution with Oral antibiotics for 7 days
- Pointers for invasive Fungal sinusitis (Facial Hypoesthesia, facial skin,/palatal/turbinate discoloration)

Ref:

Refer Pg8(https://www.icmr.gov.in/icmrobject/uploads/STWs/1725952349_ent.pdf)

https://www.icmr.gov.in/icmrobject/uploads/STWs/1725952349_ent_pharyngitis_and_sore_throat.pdf

- **The participating hospitals are requested to take herewith the above guidelines for admission and basic treatment as a guidepost to decide upon admission and basic treatment for the commonly encountered fevers and infections as mentioned above – in exceptional cases the protocol may be**

decided by the treating Doctor as the case may be and depending on the clinical scenario and clinical features of the patient.

- **Request that any deviation from the above published guidelines should be justified clinically and supported with any suitable nationally or internationally accepted published guidelines.**