

\*Fast breathing: Respiratory rate 2-11m  $\geq 50/\text{min}$ , 12-59m  $\geq 40/\text{min}$ , 5-12y  $\geq 30/\text{min}$ , 13-14y  $\geq 20/\text{min}$

Very fast breathing: Respiratory rate 2-11m  $\geq 60/\text{min}$ , 12-59m  $\geq 50/\text{min}$ , 5-12y  $\geq 40/\text{min}$ , 13-14y  $\geq 30/\text{min}$

\*\*Severe comorbidities: Uncomplicated Severe Acute malnutrition,  $< -3$  z-scores weight for age, cerebral palsy, sickle cell disease, HIV, Severe anemia, Congenital heart disease

\*\* Refer if follow-up in children with HIV or  $< 12$  months, and already treated with antibiotics for 3 days

- Bacterial pneumonia excluded by severe pneumonia

- Viral pneumonia excluded by bacterial pneumonia, IMCI/IMAI pneumonia and severe pneumonia

- Common cold excluded by mild and severe croup, IMCI/IMAI pneumonia, Bacterial and Viral pneumonia, and severe pneumonia, CNS danger sign, measles, inhalation injury, suspicion of foreign object in airways, complicated chicken pox, and significant hemoptysis

**CC0 General / Universal  
assessment or CC Respiratory**

- Cough OR
- Difficult breathing

**Danger signs, OR  
Respiratory Distress:**

- Very fast breathing\* AND Chest indrawing, OR
- Very fast breathing" AND Patient unable to finish sentence due to difficult breathing (children 5-14 years), OR
- SaO<sub>2</sub><90%\*\* , OR
- Grunting, OR
- Severe difficulty breathing needing referral

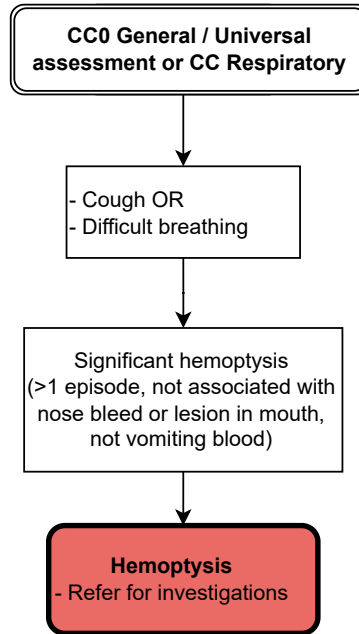
**Severe Pneumonia**

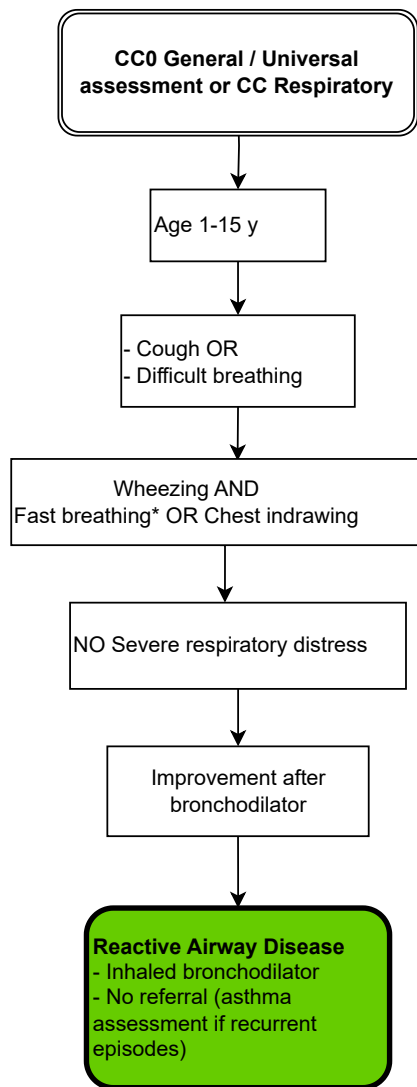
- Antibiotics
- Oxygen therapy if SpO<sub>2</sub> <90%
- INH bronchodilator if presence of wheezing (most often salbutamol
- Refer

\*Very fast breathing: Respiratory rate 2-11m ≥60/min, 12-59m ≥50/min, 5-12y ≥40/min, 13-14y ≥30/min

\*\*SpO<sub>2</sub> (Blood oxygen saturation) only measured in patients with fast breathing or chest indrawing

- Bacterial pneumonia excluded by severe pneumonia
- Viral pneumonia excluded by bacterial pneumonia and severe pneumonia
- Common cold excluded by mild and severe croup, IMCI/IMAI pneumonia, Bacterial and Viral pneumonia, and severe pneumonia, CNS danger sign, measles, inhalation injury, suspicion of foreign object in airways, complicated chicken pox, and significant hemoptysis





\*Fast breathing: Respiratory rate 2-11m  $\geq 50/\text{min}$ , 12-59m  $\geq 40/\text{min}$ , 5-12y  $\geq 30/\text{min}$ , 13-14y  $\geq 20/\text{min}$

Very fast breathing: Respiratory rate 2-11m  $\geq 60/\text{min}$ , 12-59m  $\geq 50/\text{min}$ , 5-12y  $\geq 40/\text{min}$ , 13-14y  $\geq 30/\text{min}$

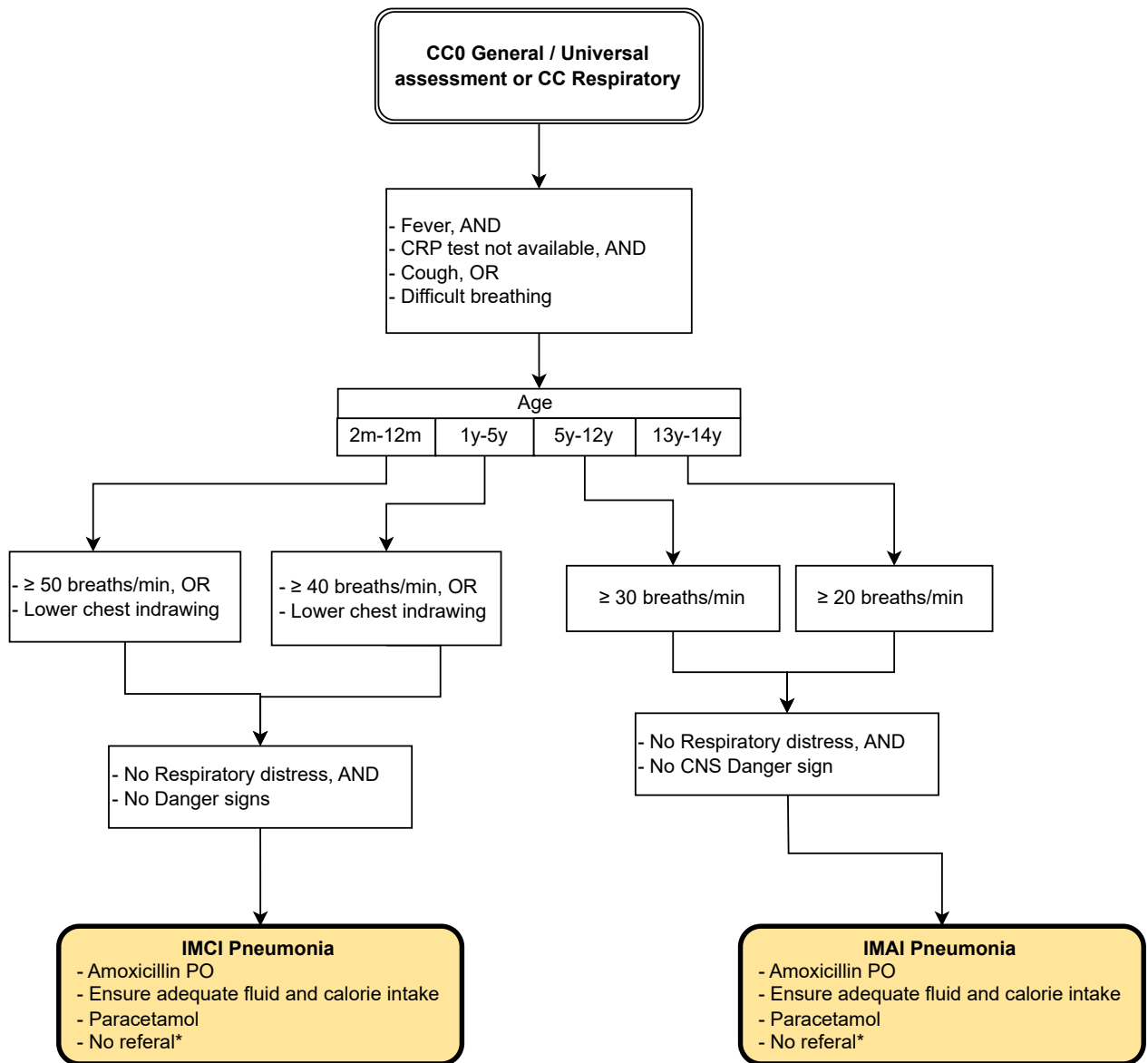
\*\*Severe comorbidities: Uncomplicated Severe Acute malnutrition,  $< -3$  z-scores weight for age, cerebral palsy, sickle cell disease, HIV, Severe anemia, Congenital heart disease

\*\* Refer if follow-up in children with HIV or  $< 12$  months, and already treated with antibiotics for 3 days

- Bacterial pneumonia excluded by severe pneumonia

- Viral pneumonia excluded by bacterial pneumonia and severe pneumonia

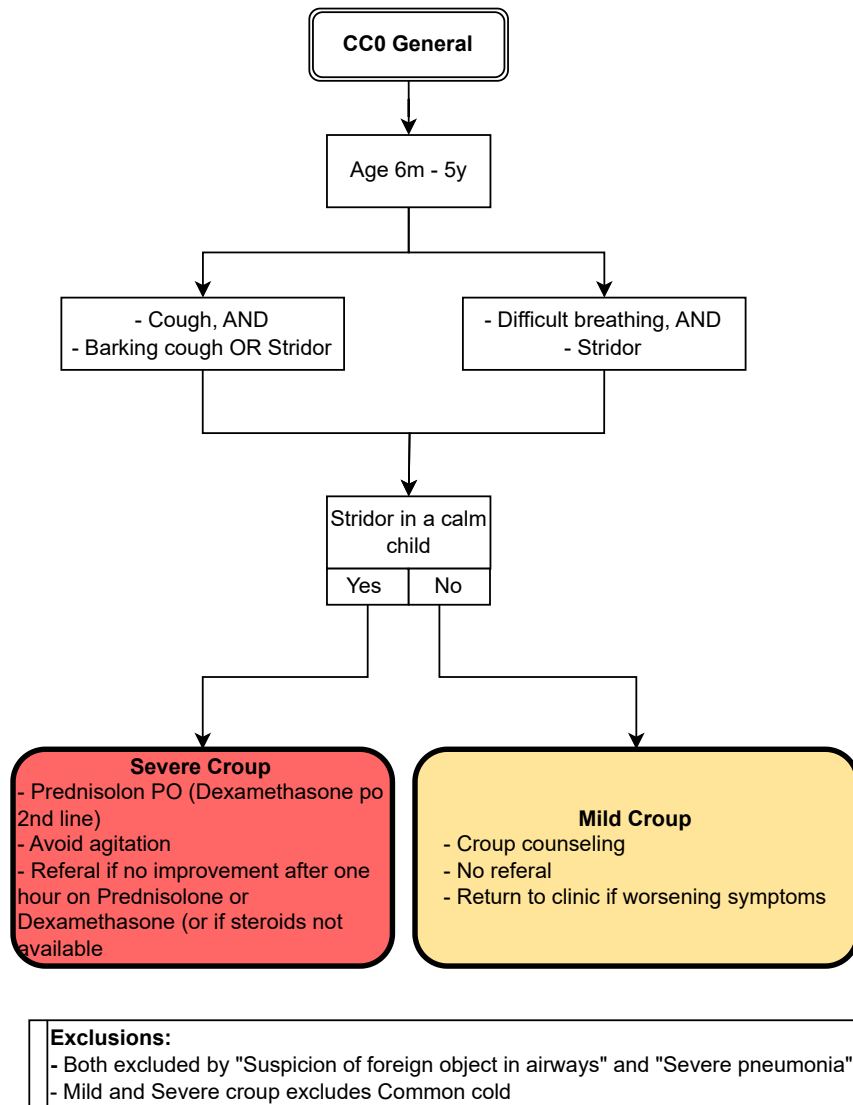
- Common cold excluded by mild and severe croup, IMCI/IMAI pneumonia, Bacterial and Viral pneumonia, and severe pneumonia, CNS danger sign, measles, inhalation injury, suspicion of foreign object in airways, complicated chicken pox, and significant hemoptysis

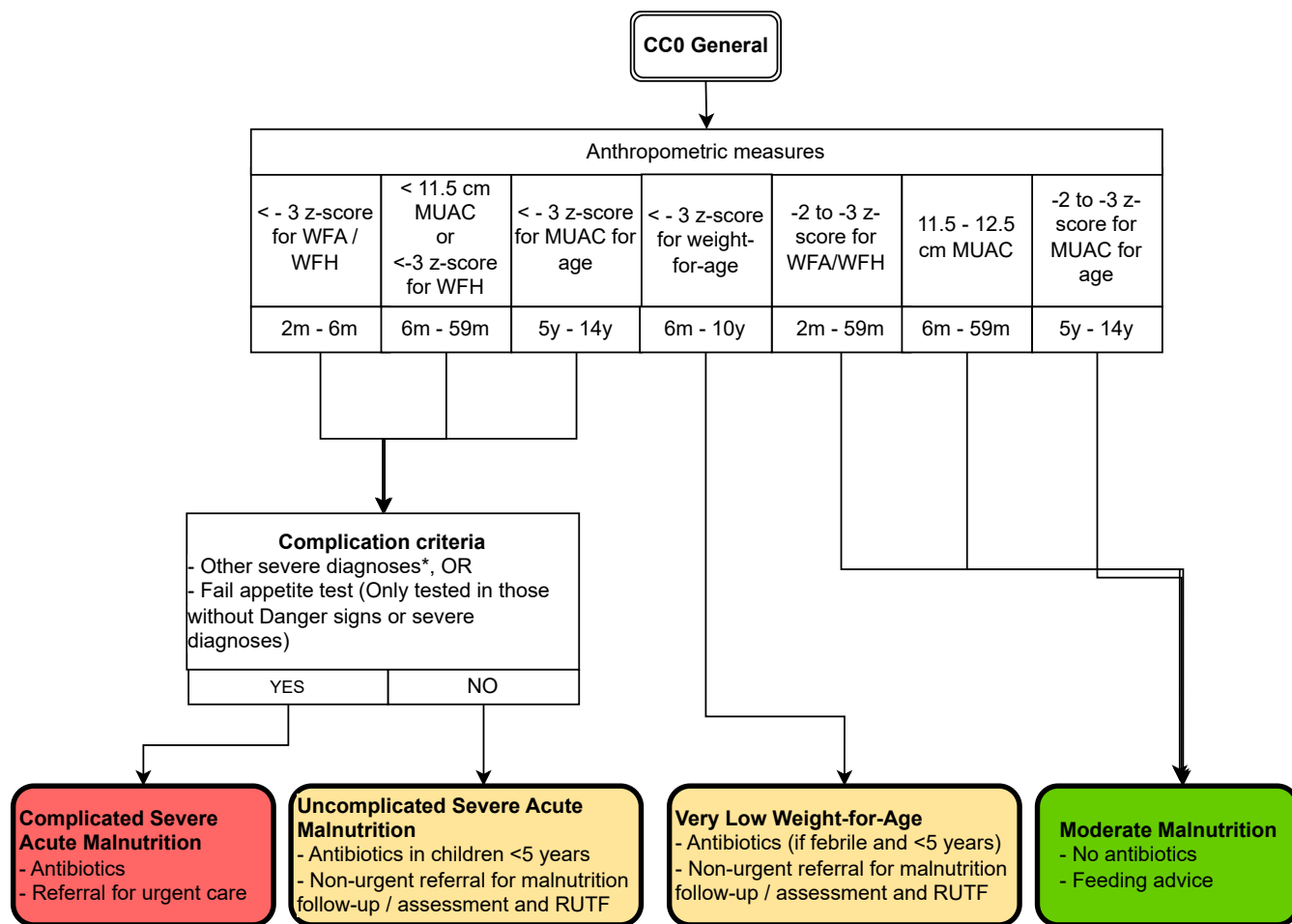


\*Refer if follow-up in children with HIV or <12 months, and already treated with antibiotics for 3 days

**Exclusions:**

- Severe pneumonia excludes very severe febrile disease, common cold, bacterial/viral pneumonia, mild/severe croup
- Bacterial pneumonia excludes viral pneumonia, common cold
- Viral pneumonia excludes IMCI pneumonia





**\*Other Severe diseases:**

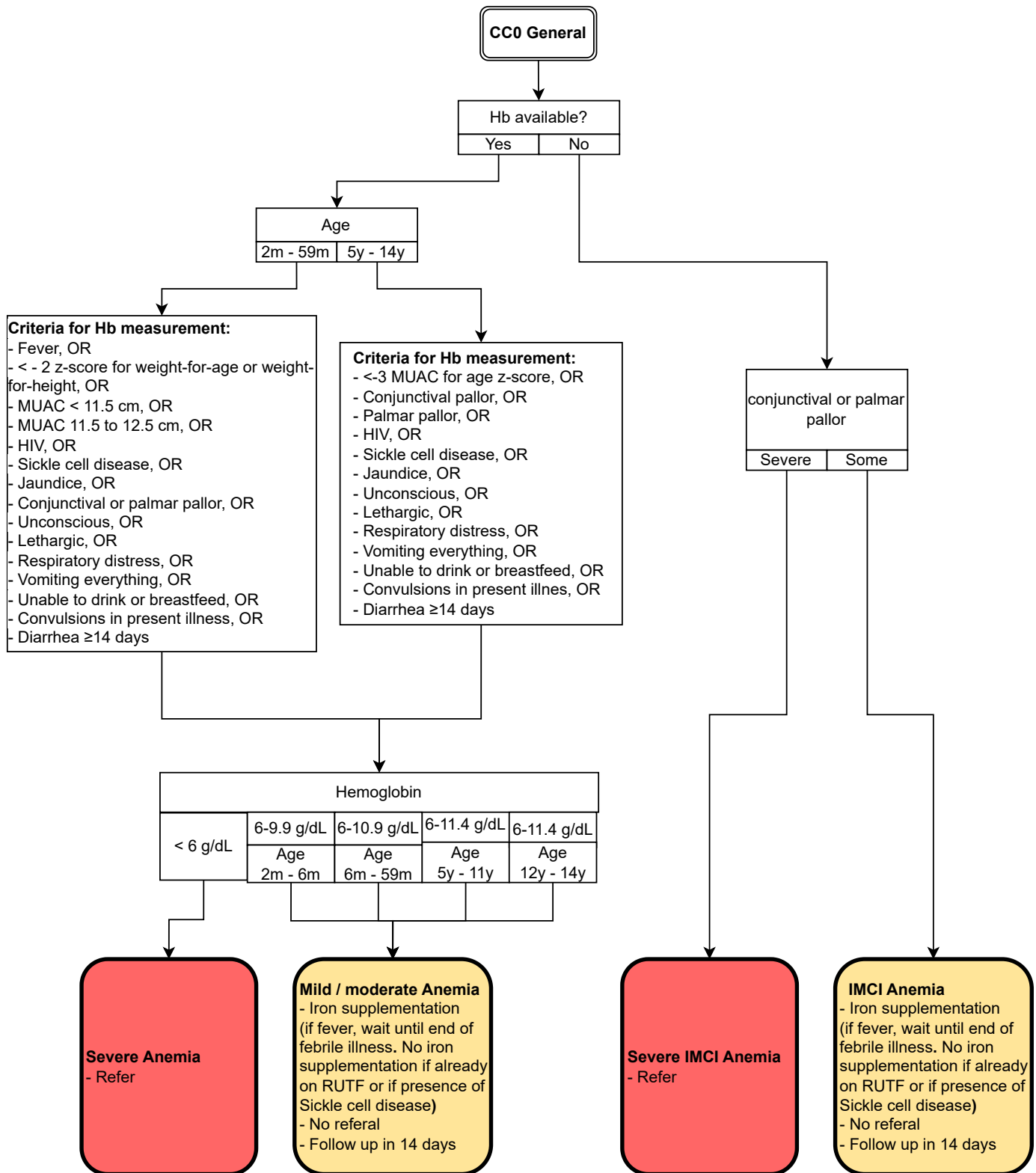
- CNS danger sign, OR Suspected meningitis, OR
- Severe anemia, OR
- Severe dehydration, OR
- Measles, OR Chicken pox, OR
- Respiratory distress, OR
- Bacterial pneumonia, OR
- IMCI pneumonia w chest indrawing, OR
- IMAI pneumonia and unable to finish sentence due to difficult breathing, OR
- Severe abdominal condition, OR
- Mastoiditis, OR
- Severe eye disease, OR
- Complicated abscess or complicated cellulitis, OR
- osteomyelitis/septic arthritis, OR
- Hypoglycemia ( $< 3$  mmol/l)

**Abbreviations:**

BMI: Body Mass Index  
 MUAC: Mid-Upper Arm Circumference  
 RUTF: Ready-to-Use Therapeutic Food  
 WFA: Weight for Age  
 WFH/L: Weight-for-Height or Weight-for-Length

**Exclusions:**

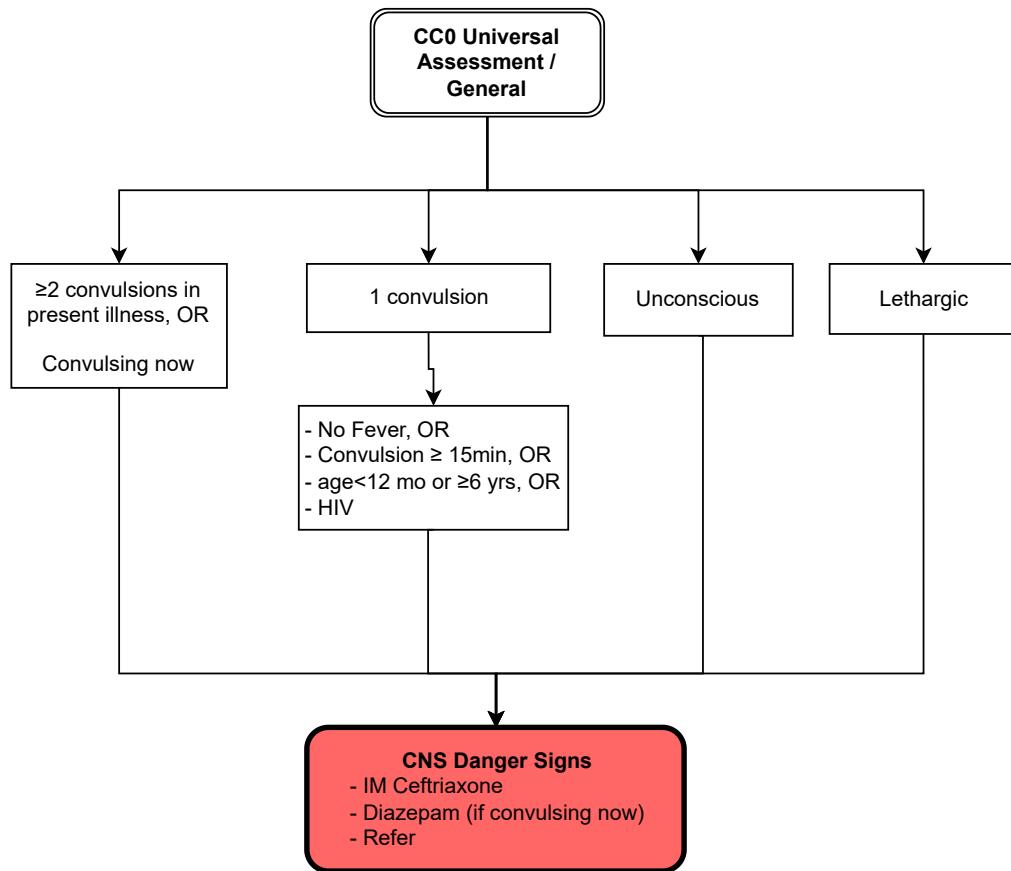
- Complicated Severe Acute malnutrition excludes Uncomplicated Severe Acute Malnutrition, Moderate malnutrition, Very low Weight for Age
- Uncomplicated Severe Acute malnutrition excludes moderate malnutrition and Very Low Weight-for-Age

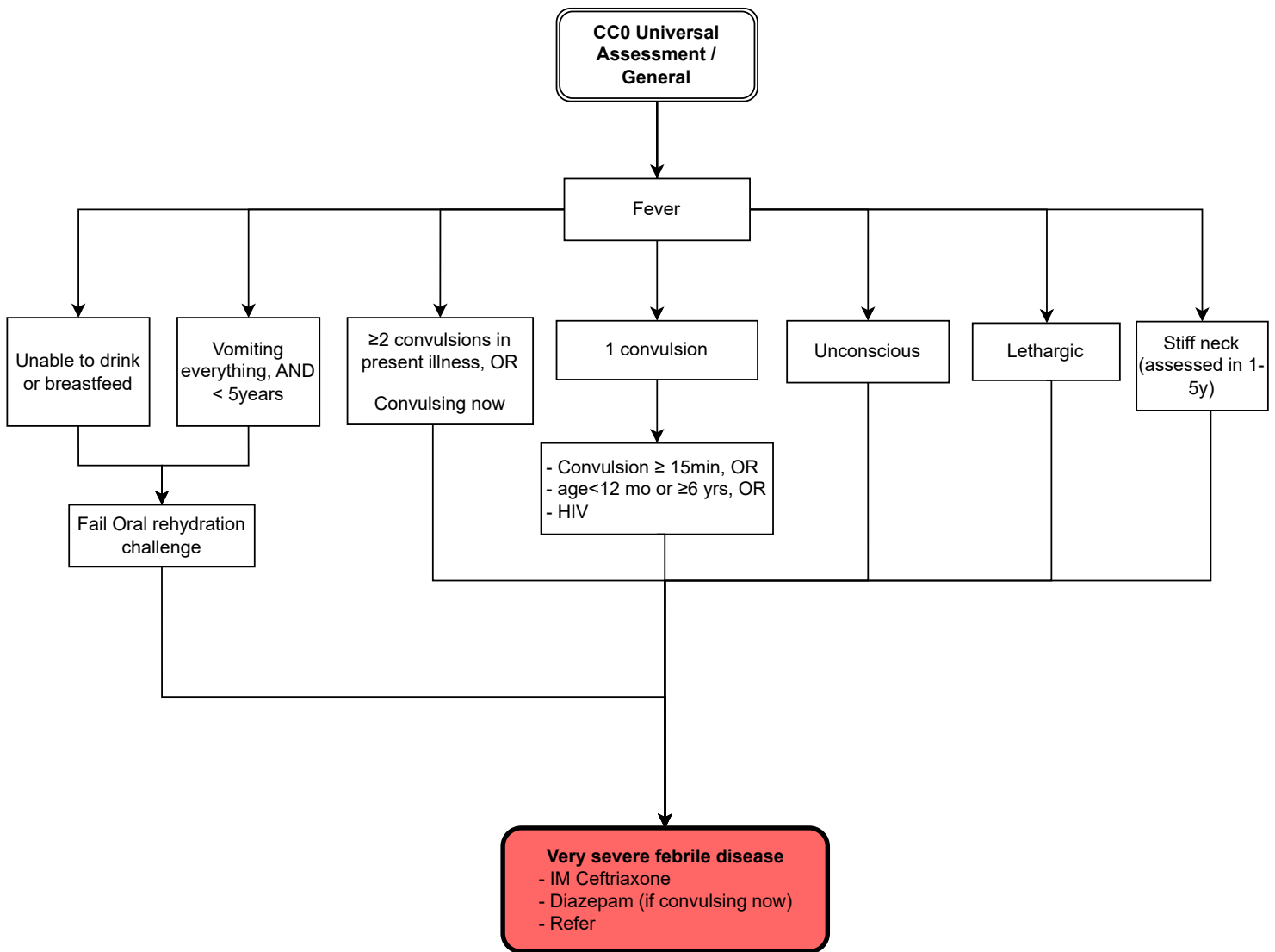


**Note:**

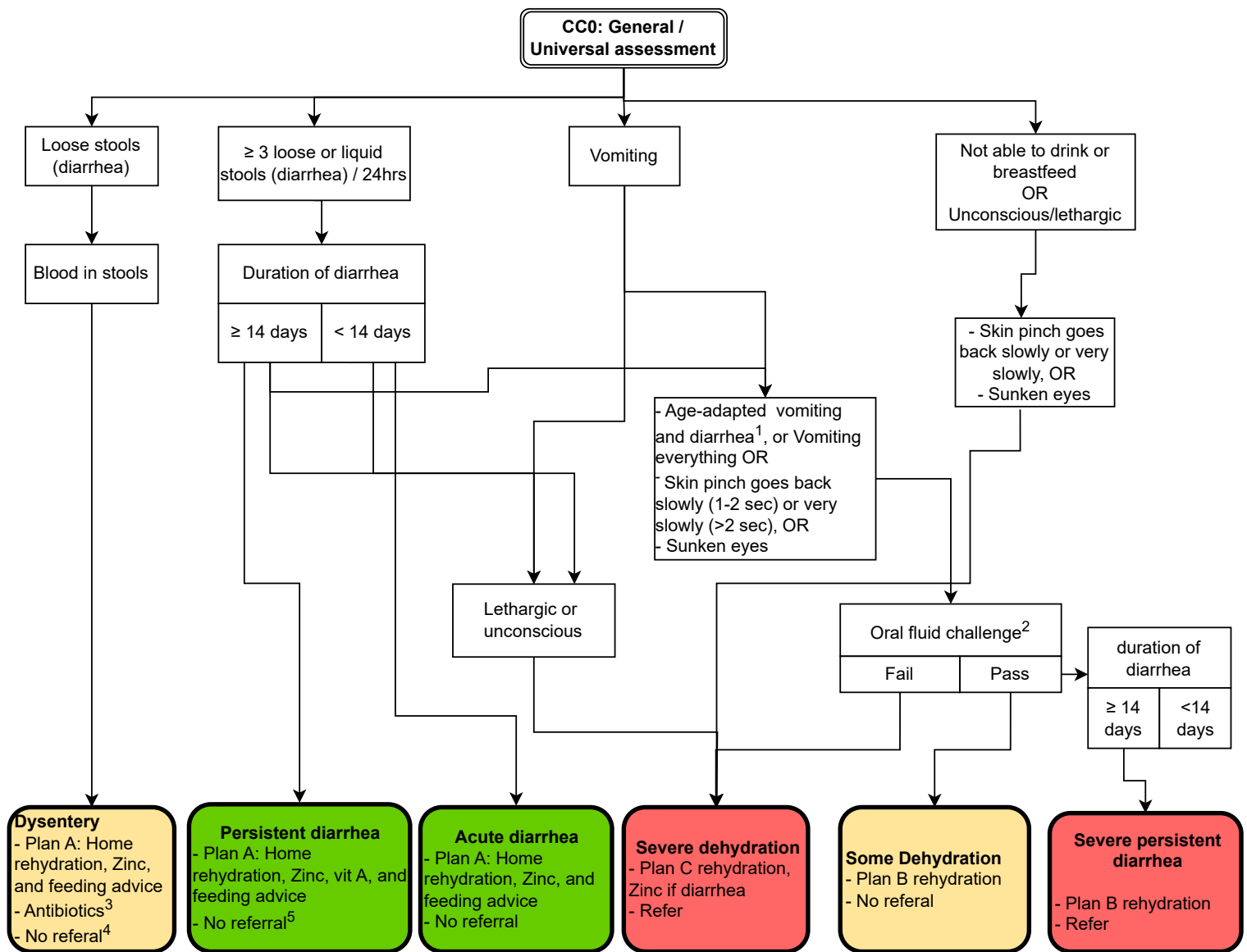
- Hemoglobin can also be selected as an additional test in order to reach the diagnosis of severe and mild/moderate anemia
- Referral should be considered if anemia despite >2 month of treatment with iron







<b>Exclusions:</b> - Excludes CNS Danger signs	
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<sup>1</sup> Age adapted vomiting and diarrhea:

Age 2-12m: ≥ 4 loose stools or ≥ 4 episodes of vomiting / 24hours, or ≥ 3 loose stools/24 hours and vomiting  
 Age 12 - 59m: ≥ 5 loose stools or ≥ 5 episodes of vomiting / 24 hours, or ≥ 4 loose stools/24 hours and vomiting  
 Age 5 - 14y: ≥ 6 loose stools or ≥ 6 episodes of vomiting / 24 hours, or ≥ 5 loose stools/24 hours and vomiting

<sup>2</sup> Oral fluid challenge: Provide water to drink and see if able to drink without vomiting (only performed in those not convulsing now, and not unconscious/lethargic). If oral fluid challenge not possible at clinic, ask mother about last feed/drink.

<sup>3</sup> Antibiotics for children < 5 years. If ≥ 5 years, antibiotics only if febrile, or < -3 z-score for MUAC for age. Switch to second line treatment if symptoms have not improved after 3 days of antibiotic treatment with first line treatment.

<sup>4</sup> Referral for children with HIV, < 12 months, measles, or severe malnutrition, who did not have any improvements following three days of the first line treatment.

<sup>5</sup> Referral for children with HIV (CTC) or if already received 5 or more days of zinc and feeding counselling

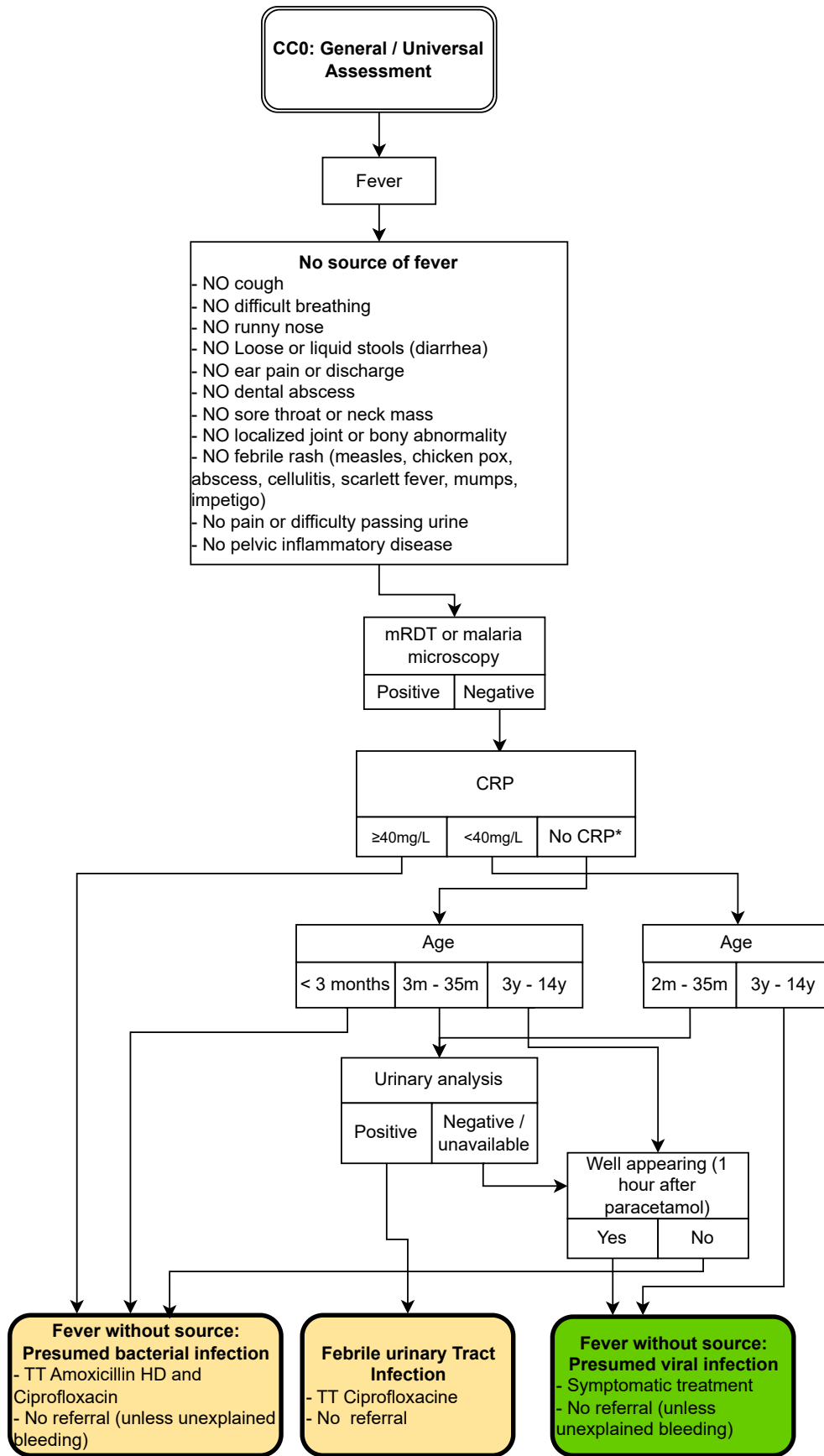
Plan B and C rehydration as per IMCI

#### Abbreviations:

ORS: Oral Rehydration Salt

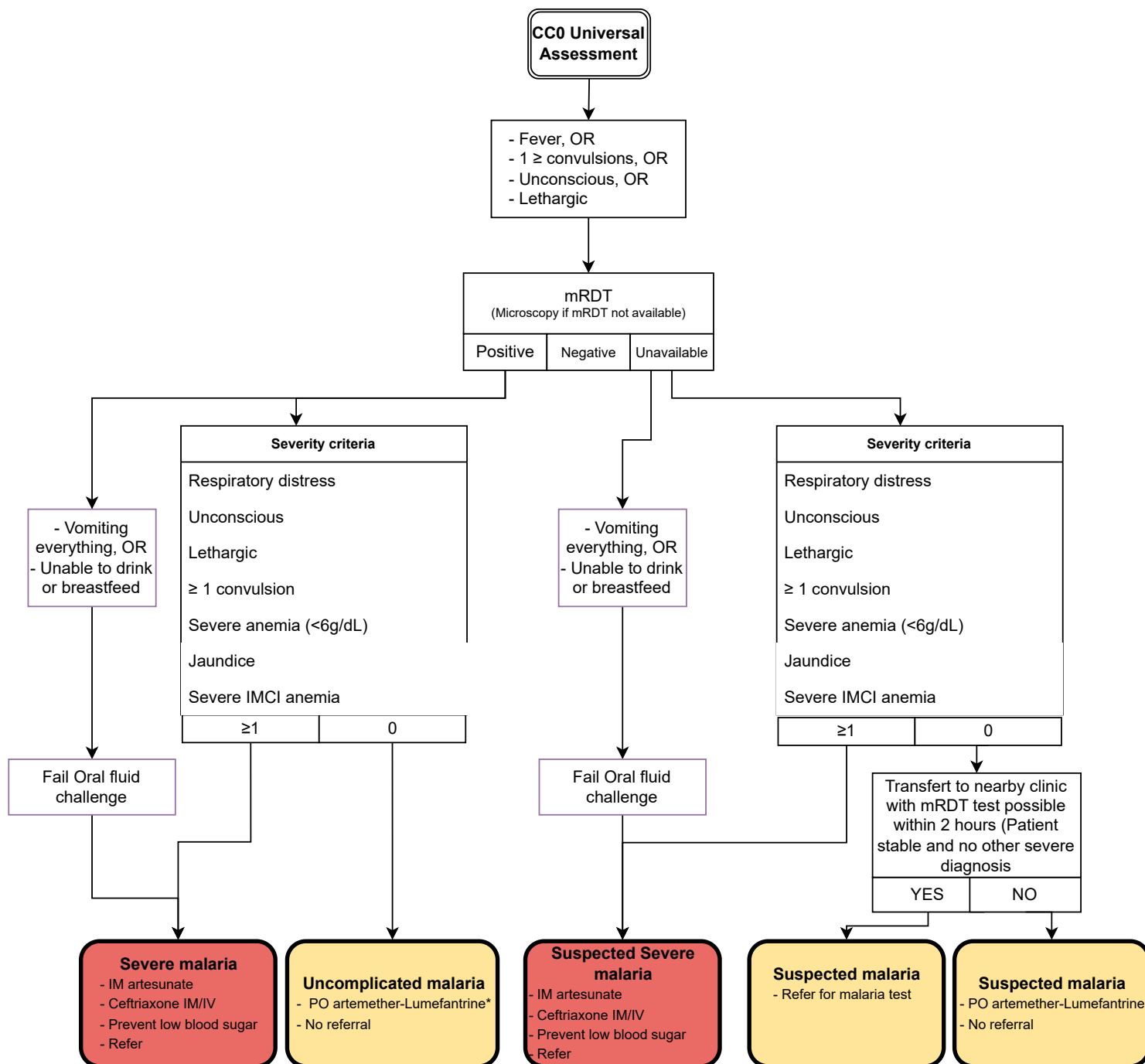
#### Exclusions:

- Severe dehydration excludes Severe persistent dehydration
- Severe persistent diarrhea excludes Some dehydration
- Severe abdominal condition excludes Dysentery



**Exclusions:**

Fever without source bacterial and viral excluded by: Complicated prolonged fever

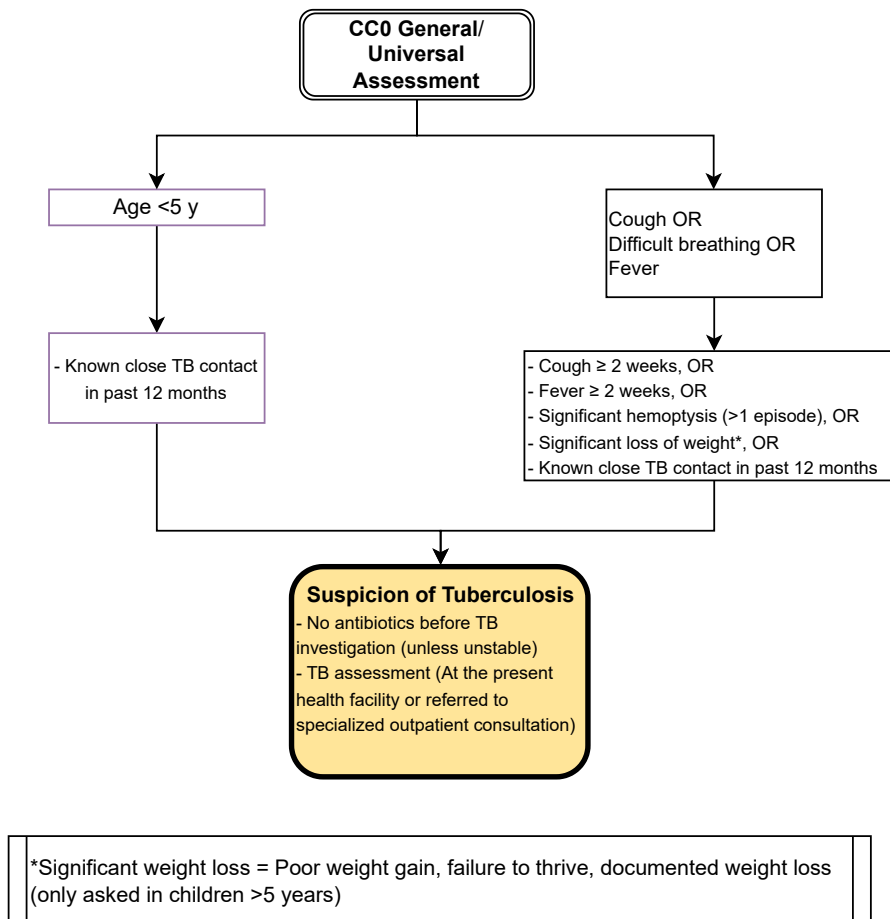


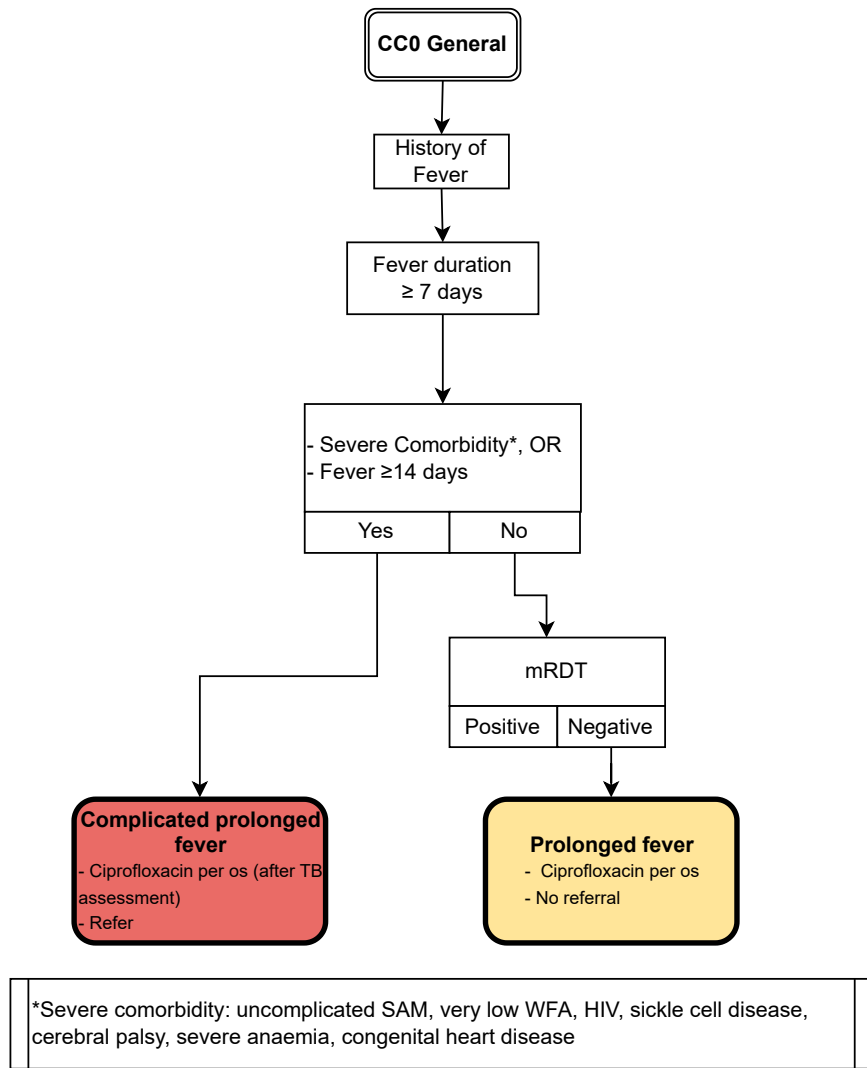
\*2nd line antimalarial is proposed if persisting fever after completion of first line antimalarial

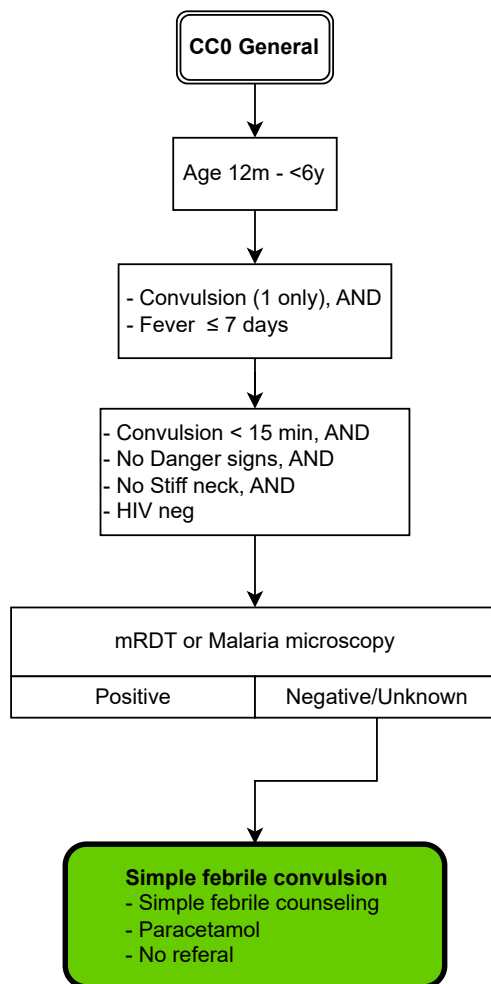
**Note:** Uncomplicated malaria can be reached if "additional test" is selected and the clinician selects malaria test, which becomes positive.

**Exclusions:**

- Severe malaria excludes CNS Danger signs, Very severe febrile disease, Severe pneumonia, and Uncomplicated malaria
- Suspected severe malaria excludes Suspected malaria



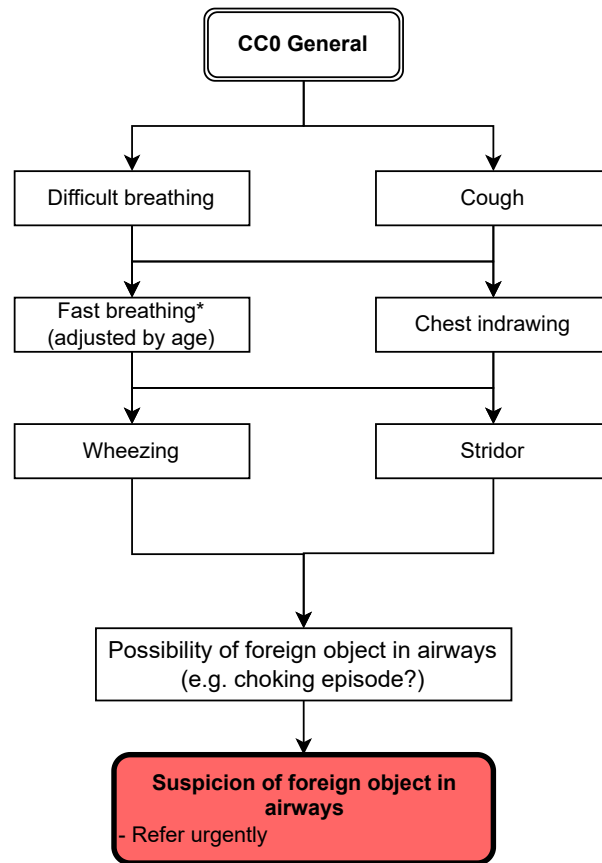




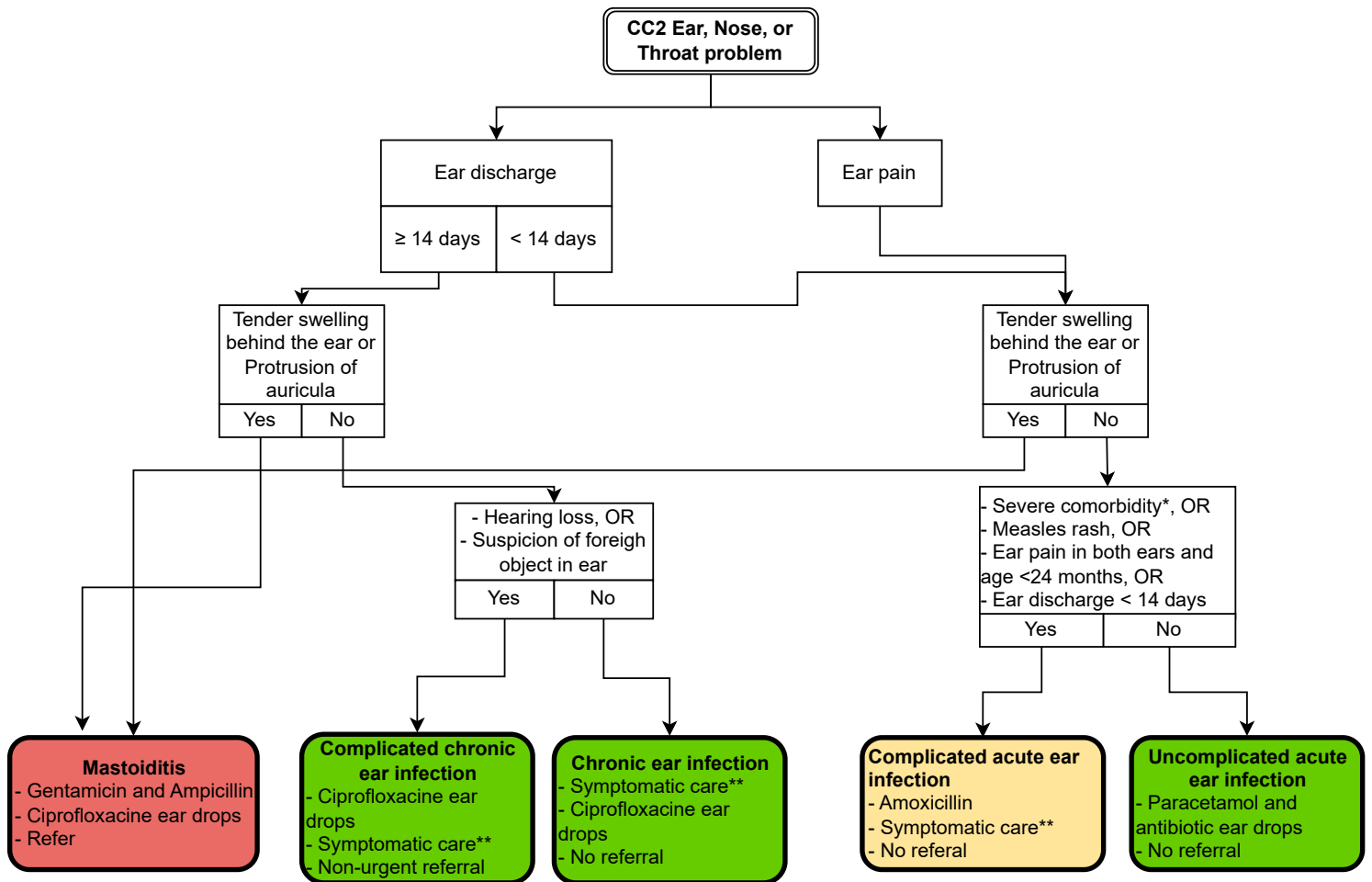
**Exclusions:**

Excluded by: Suspected Tuberculosis





**\*Fast breathing:** Respiratory rate 2-11m  $\geq 50/\text{min}$ , 12-59m  $\geq 40/\text{min}$ , 5-12y  $\geq 30/\text{min}$ , 13-14y  $\geq 20/\text{min}$

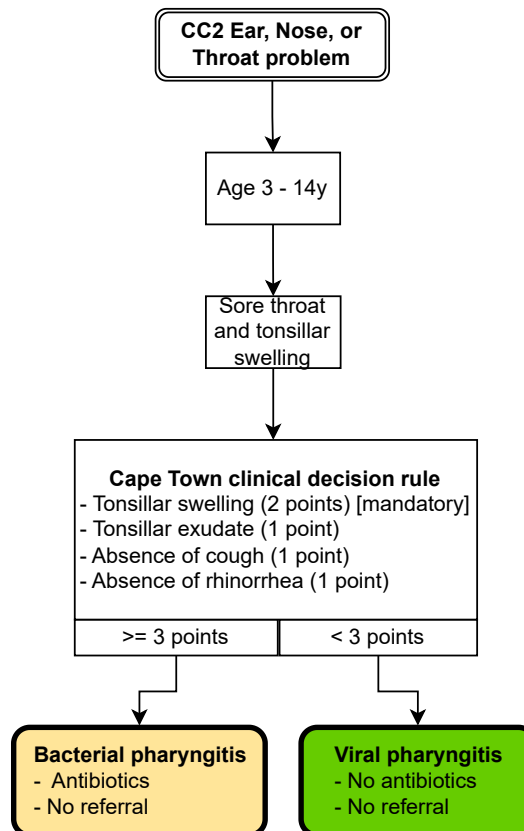


\*Severe comorbidities: Uncomplicated Severe Acute malnutrition, <-3 z-scores weight for age, cerebral palsy, sickle cell disease, HIV, Severe anemia, Congenital heart disease

\*\*Symptomatic care = wicking of ear if presence of discharge

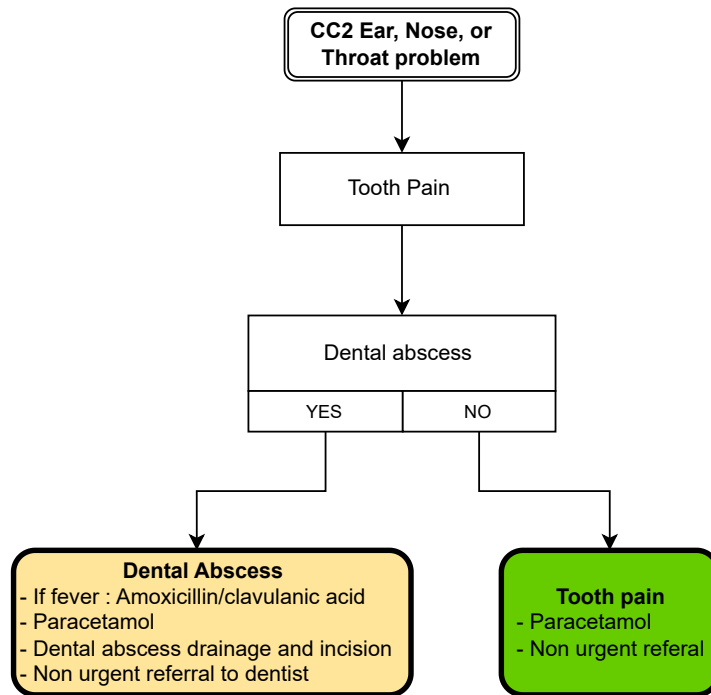
**Exclusions:**

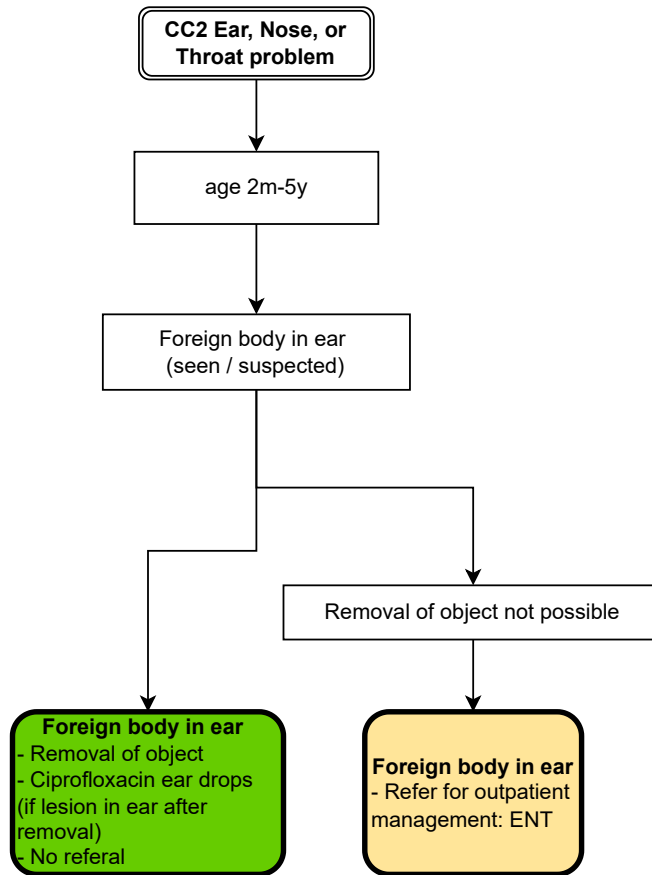
- Complicated acute ear infection excluded by Mastoiditis
- Chronic ear infection excluded by Complicated chronic ear infection
- Uncomplicated acute ear infection excluded by Mastoiditis, complicated acute ear infection, mumps, and dental abscess



**Exclusions:**

- Bacterial and viral pharyngitis Excludes: Uncomplicated infectious lymphadenitis, uncomplicated lymphadenopathy, and acute uncomplicated ear infection





**CC2 Ear, Nose, or Throat problem**



- Mouth pain, OR
- Eating less than usual, OR
- Sore throat



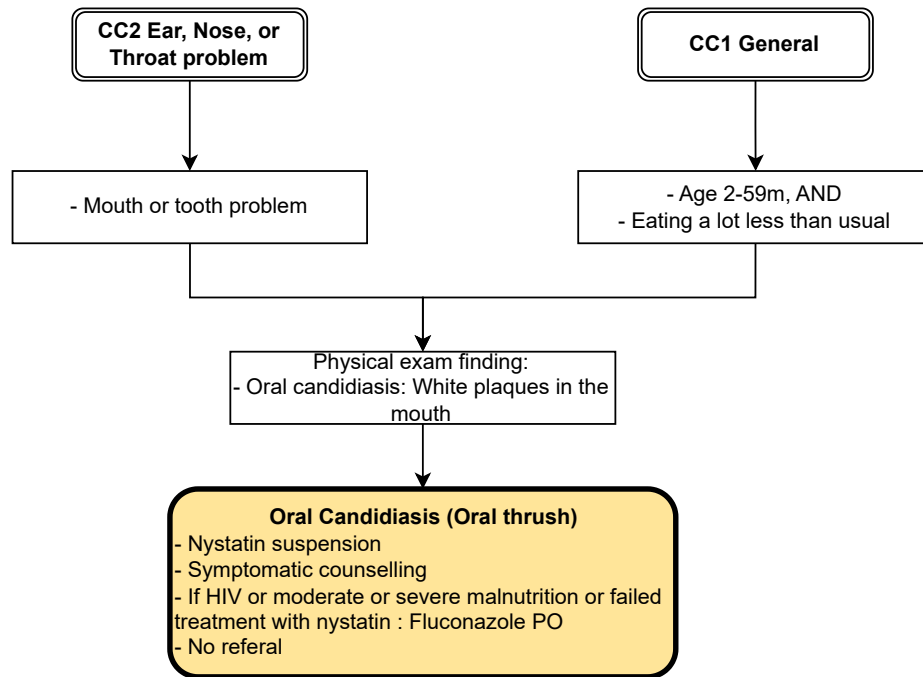
Physical exam:

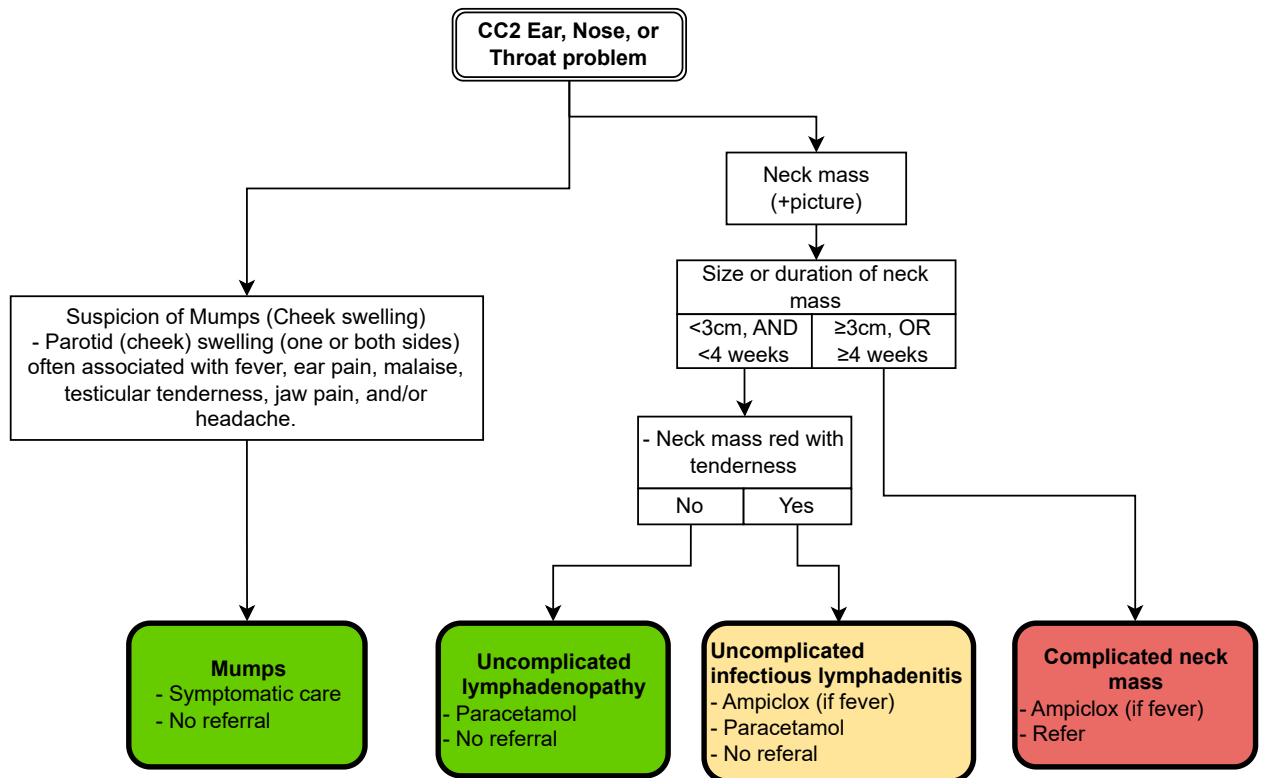
- Mouth ulcers, OR
- Herpangina



**Oral aphthous ulcers**

- Oral aphthous ulcers advice
- Paracetamol
- Gentian violet (half strength)
- No referral

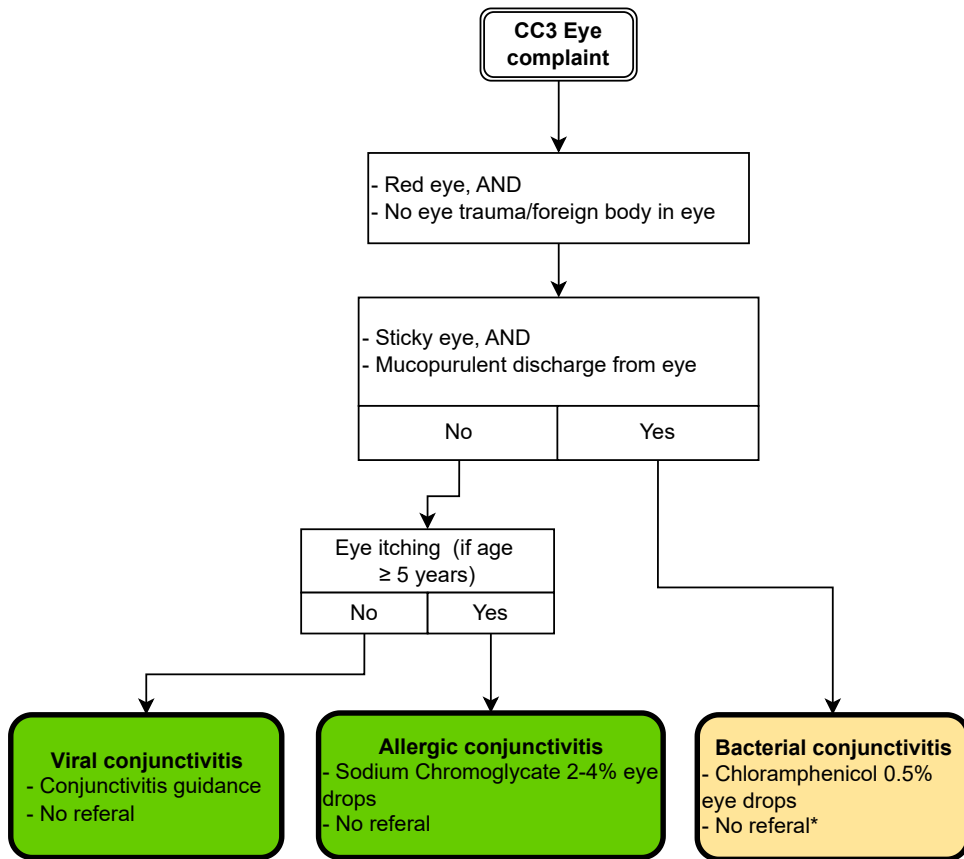




**Exclusions:**

Uncomplicated lymphadenopathy and Uncomplicated infectious lymphadenitis  
excluded by viral and bacterial pharyngitis

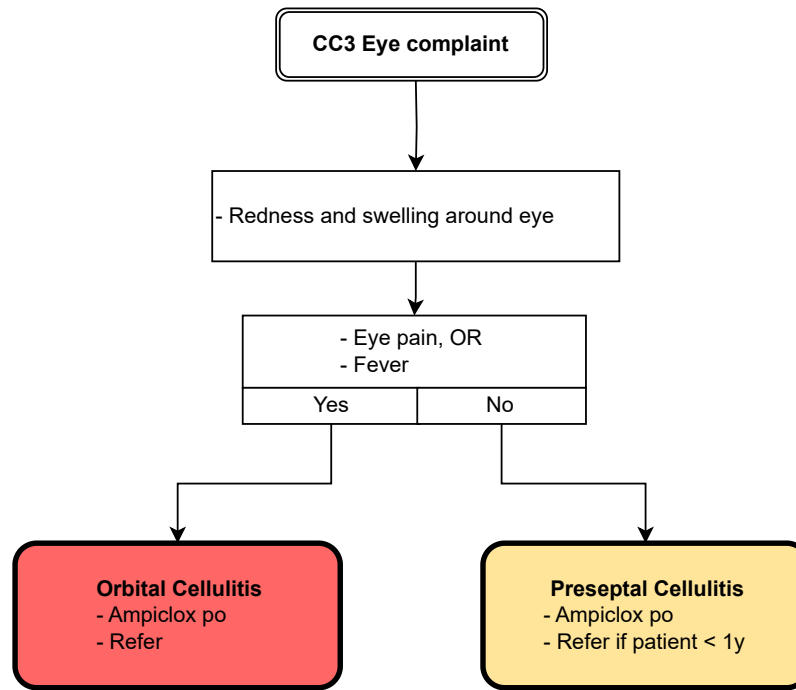




\*Outpatient referral for patient's without improvement after 5 days of antibiotic eye drops

**Exclusions:**

Bacterial, viral and allergic conjunctivitis excluded by: Severe eye disease, measles, severe measles, corneal abrasion



**CC3 Eye complaint**

- Red eye, AND
- Eye trauma/foreign body in eye

**Corneal abrasion**

- Foreign body removal from the eye
- Chloramphenicol 0.5% eye drops
- Refer if removal of foreign body not possible

**Exclusions:**

Excludes: Bacterial and viral conjunctivitis

**CC3 Eye complaint**

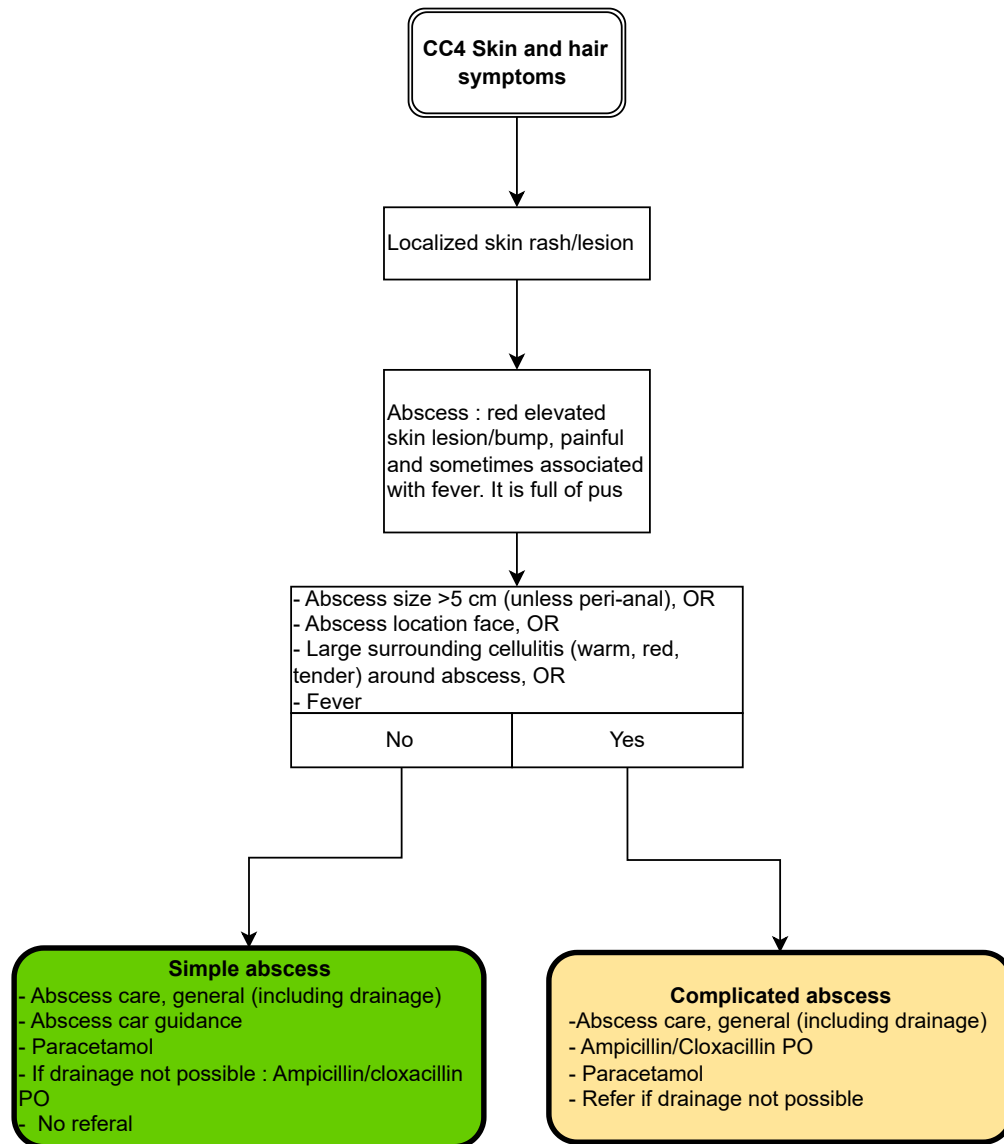
- Clouding of cornea, OR
- Severe eye pain, OR
- Bleeding of eye, OR
- Red eye > 2 weeks, OR
- In-turned eye lashes, OR
- Loss of vision

**Severe eye disease**

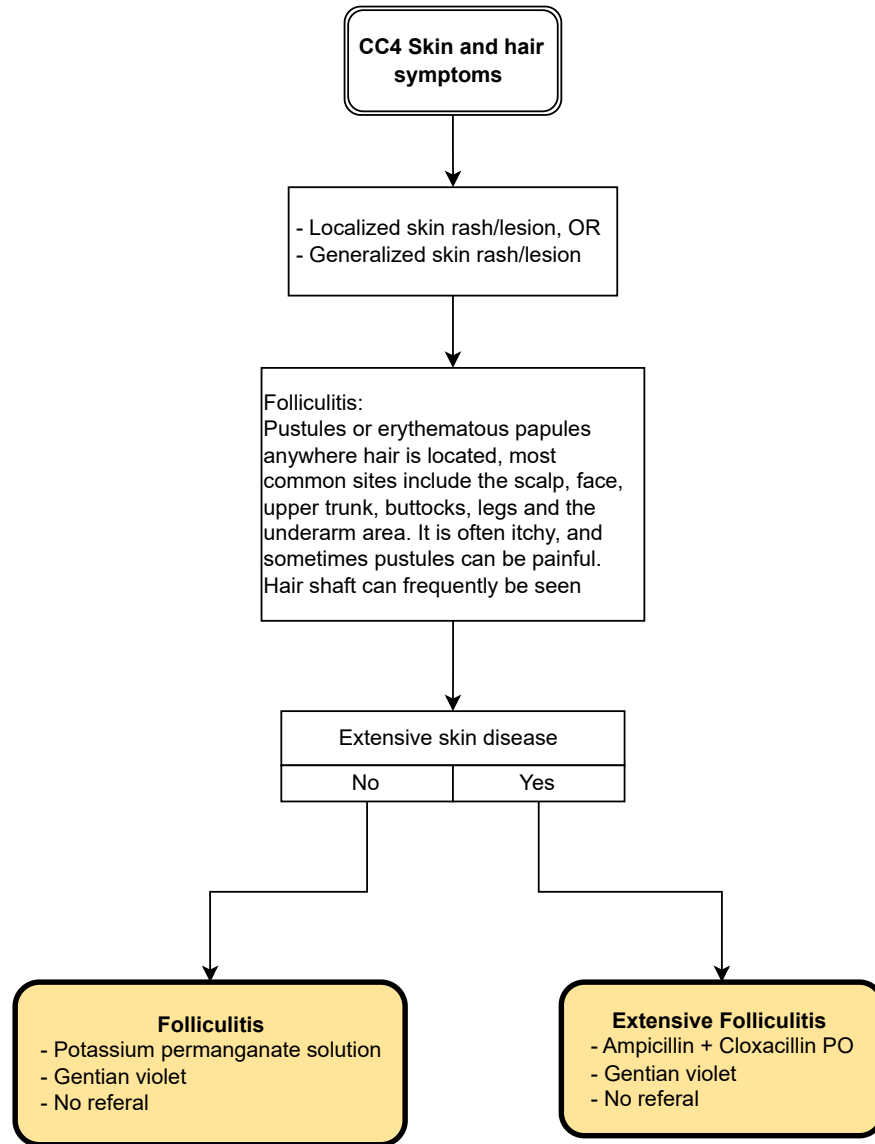
- Refer urgently if severe eye pain, otherwise non-urgent outpatient referral
- Chloramphenicol 0.5% eye drops (in all but those with severe eye pain)

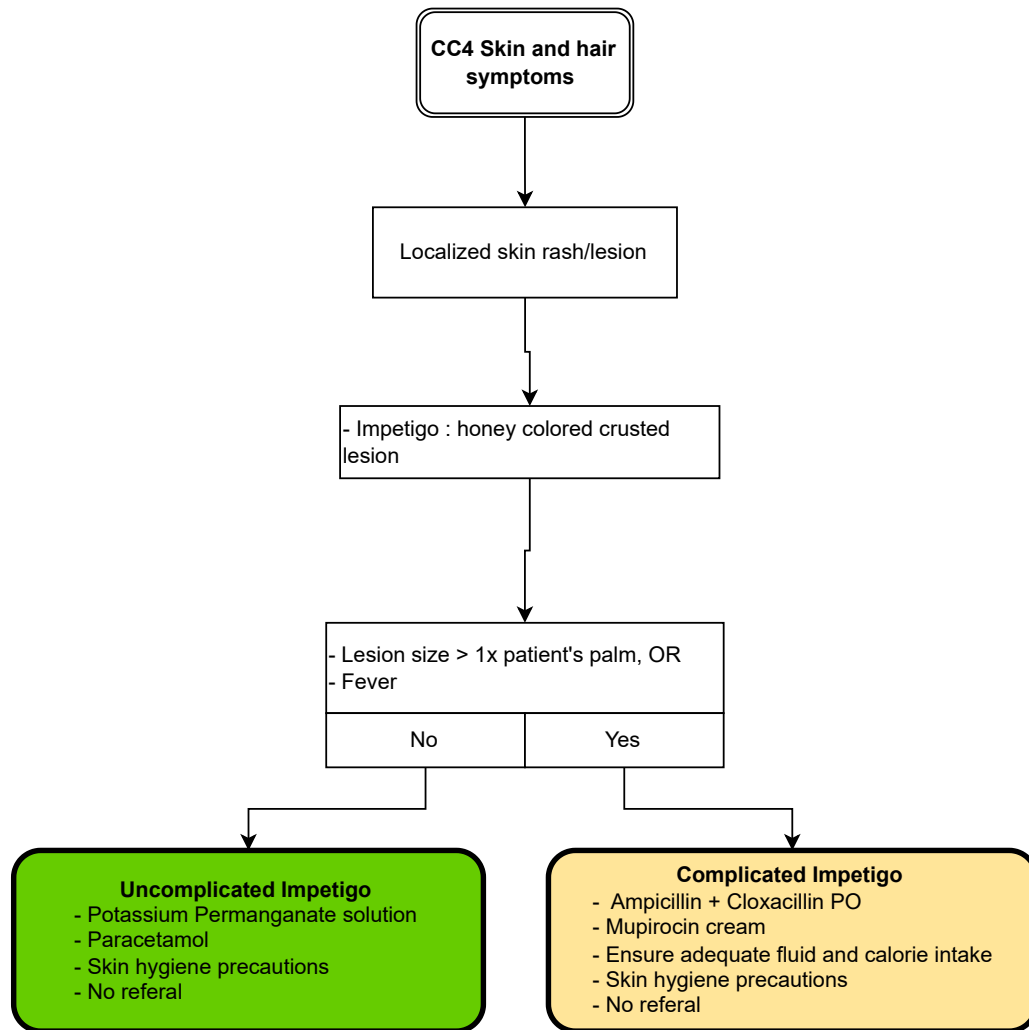
**Exclusions:**

Excludes: Bacterial and viral conjunctivitis

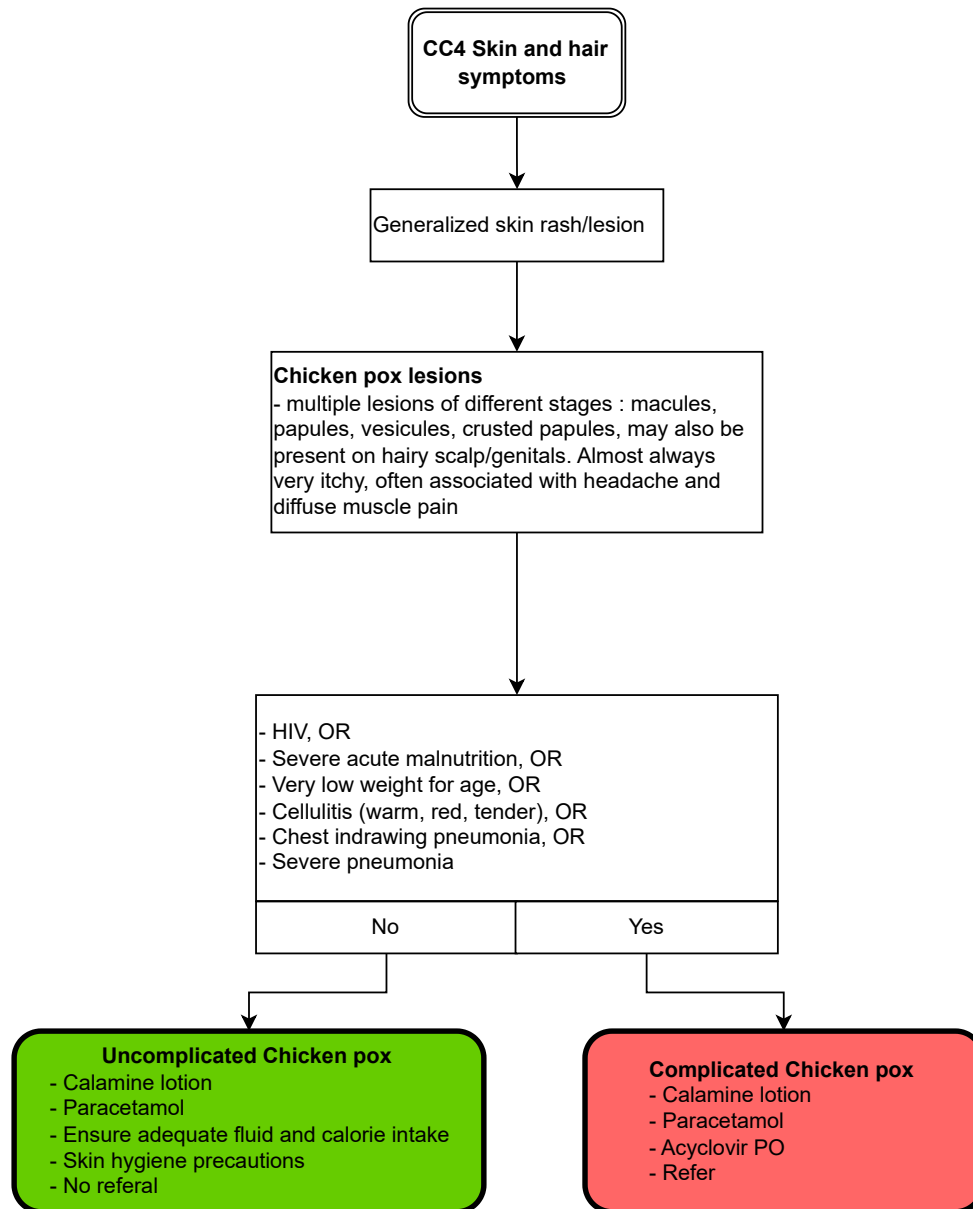


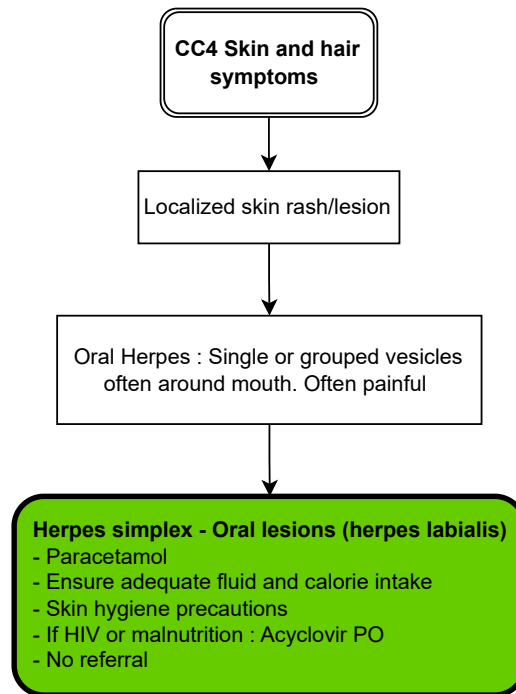


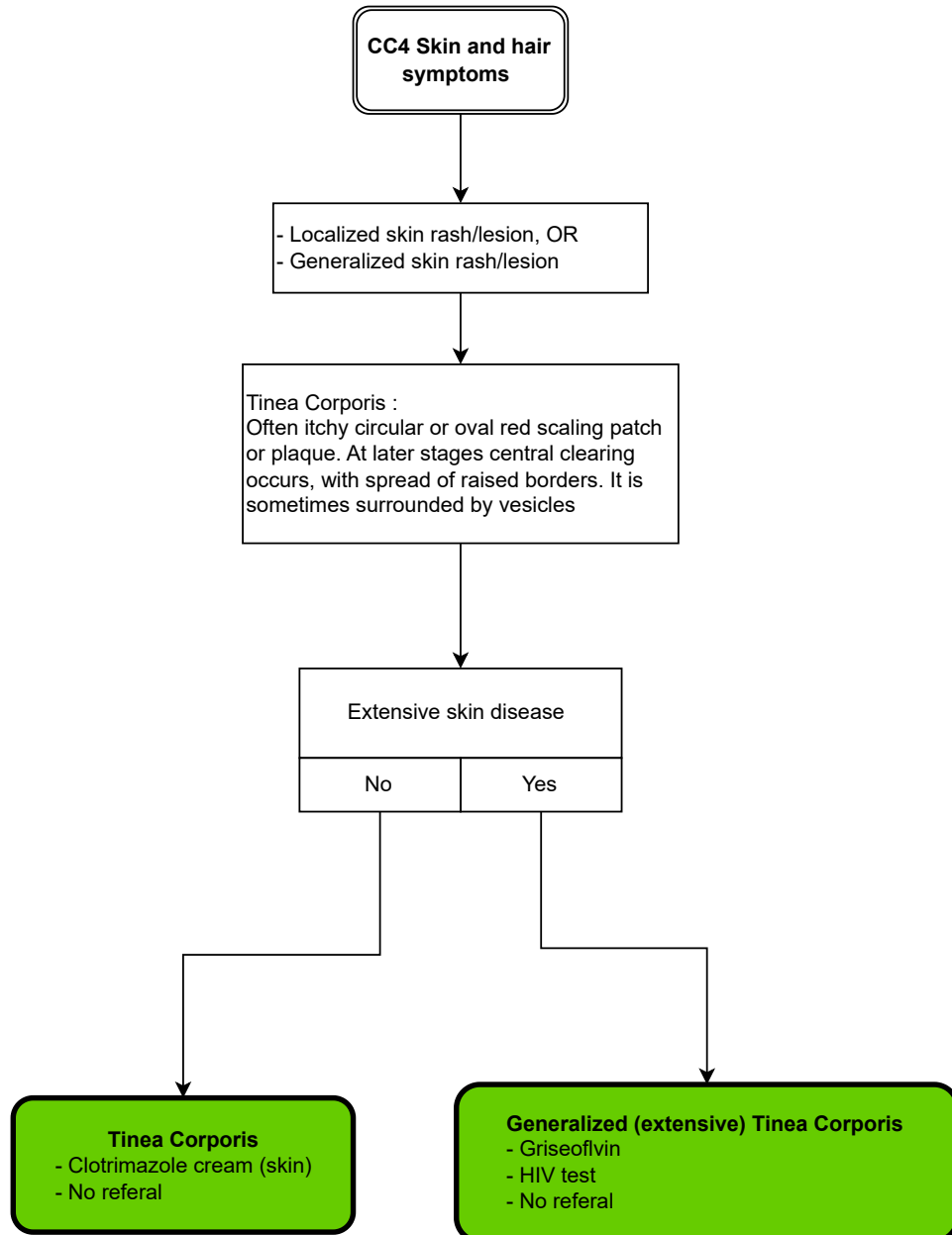












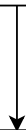
**CC4 Skin and hair  
symptoms**



Localized skin rash/lesion



Tinea Capitis :  
Often itchy circular or oval red scaling patch or  
plaque, sometimes surrounded by vesicles,  
pustule formations or a buggy fluctuant mass  
(kerion). It is often associated with hair loss



**Tinea Capitis**  
- Griseofulvin  
- No referral

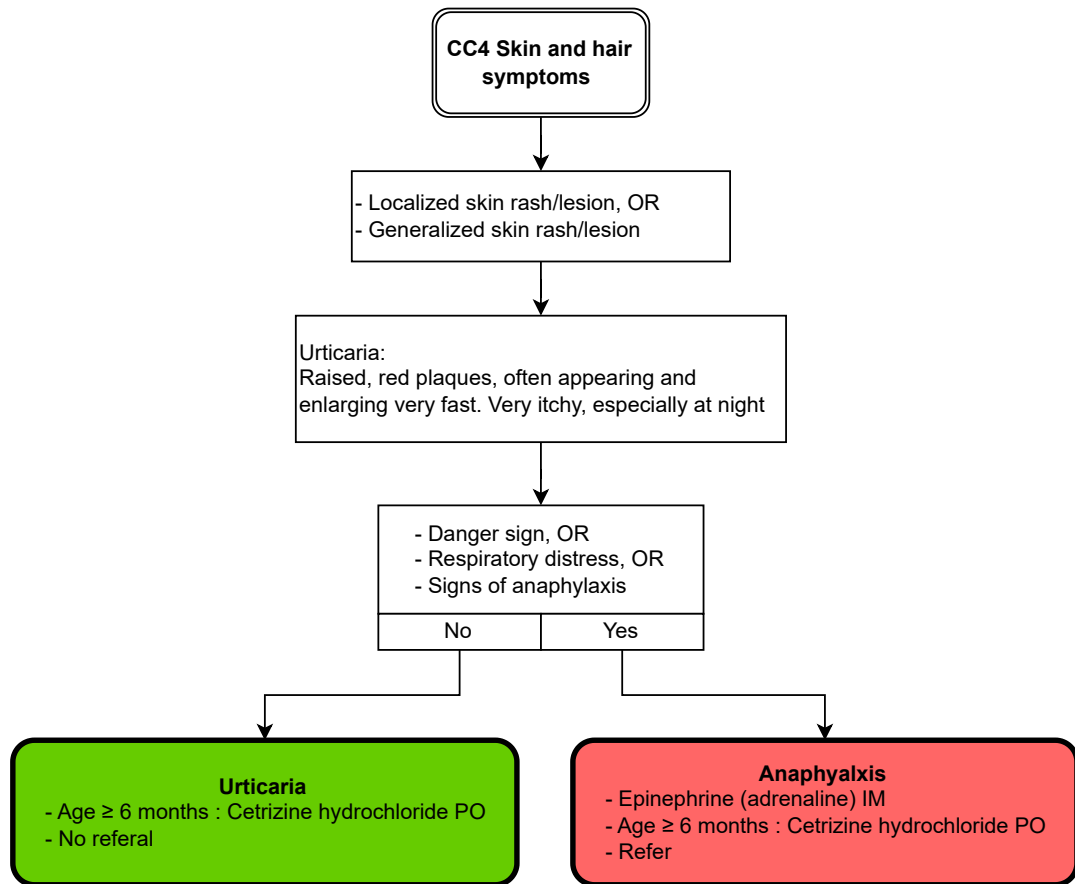
**CC4 Skin and hair symptoms**

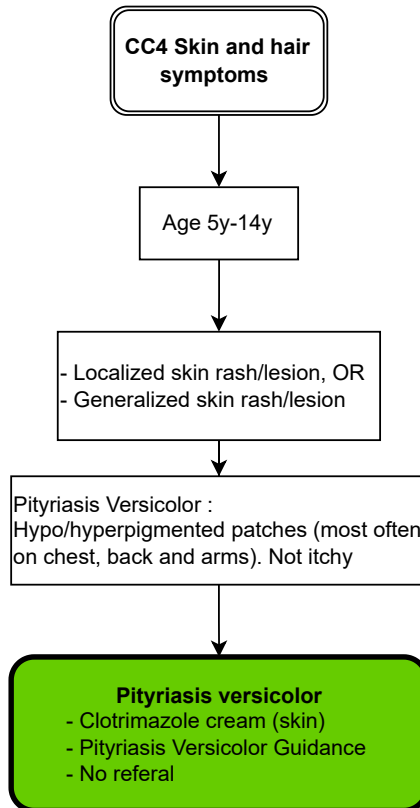
- Localized skin rash/lesion, OR
- Generalized skin rash/lesion

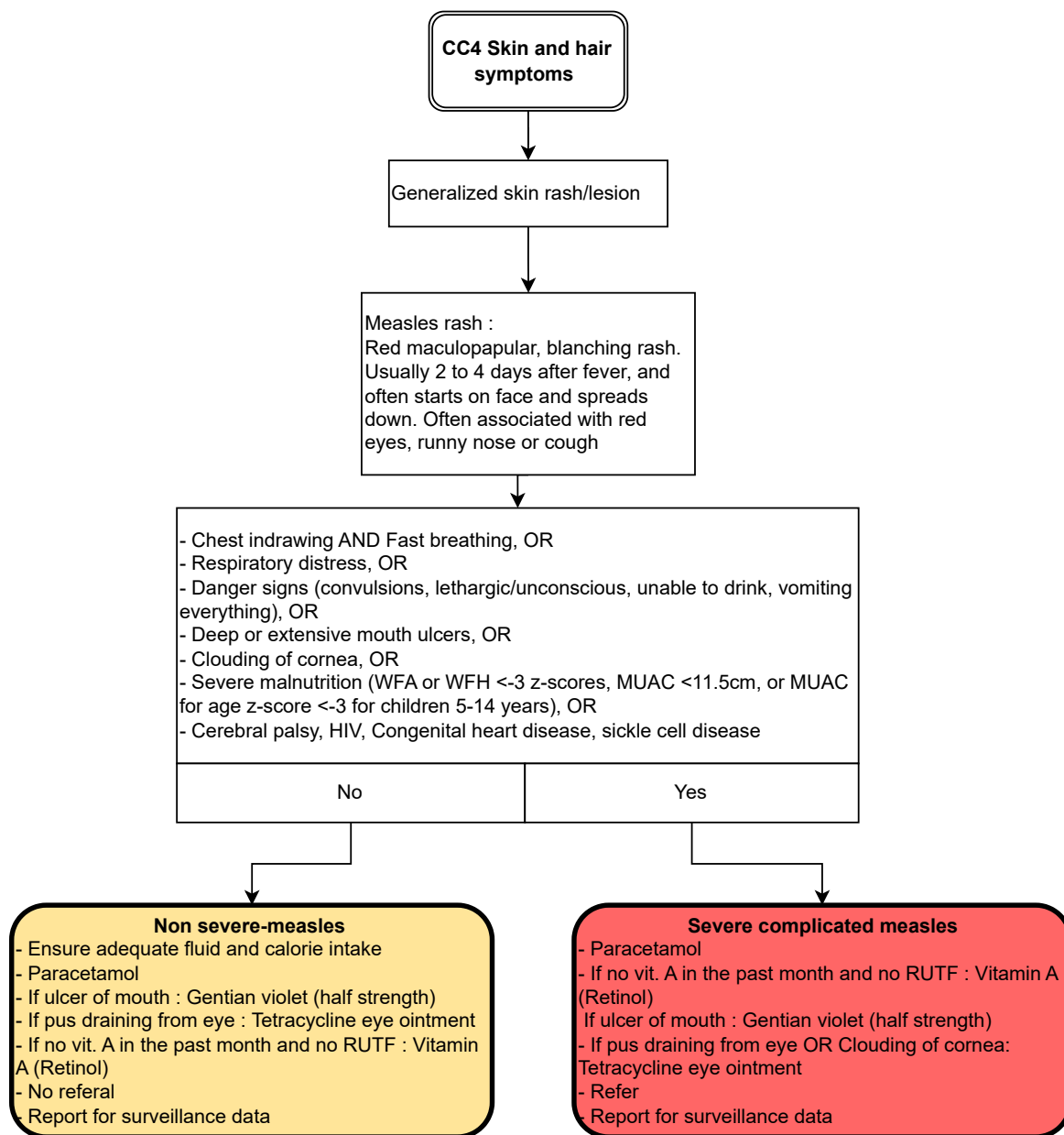
Scabies :  
Itchy (especially at night), small, red papules or vesicles, sometimes with excoriation or burrows. Found mostly in interdigital spaces of the hands and feet, wrists, waistline, and genitals. In infants consider palms and soles

**Scabies**

- Benzyl benzoate emulsion
- Paracetamol
- Scabies household management advice
- No referral





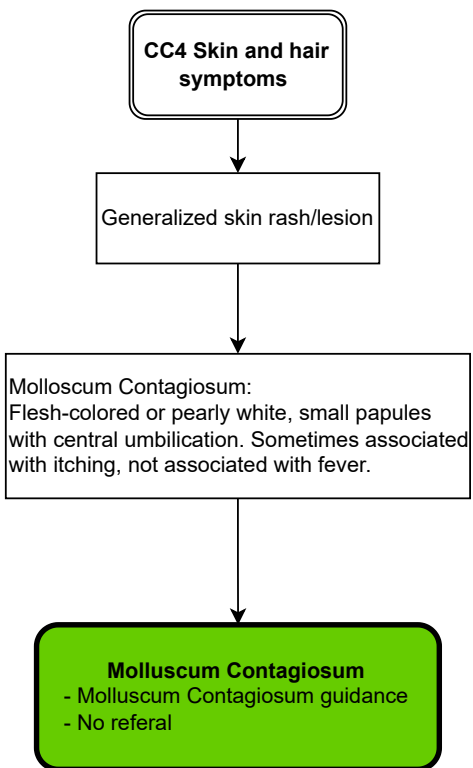


\*Fast breathing: Respiratory rate 2-11m ≥50/min, 12-59m ≥40/min, 5-12y ≥30/min, 13-14y ≥20/min

**Exclusions:**

- Complicated or uncomplicated measles excludes bacterial or viral conjunctivitis





**CC4 Skin and hair symptoms**



Generalized skin rash/lesion



Non specific viral rash :  
Many viruses cause a maculo-papular rash, they can be accompanied with unspecific symptoms such as fever, headache, muscle, joint or back pain



**Non specific viral rash**

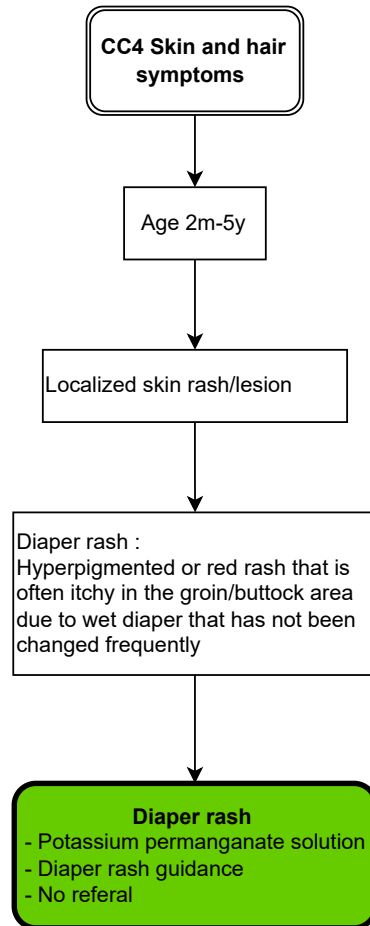
- Ensure adequate fluid and calorie intake
- Paracetamol
- No referral

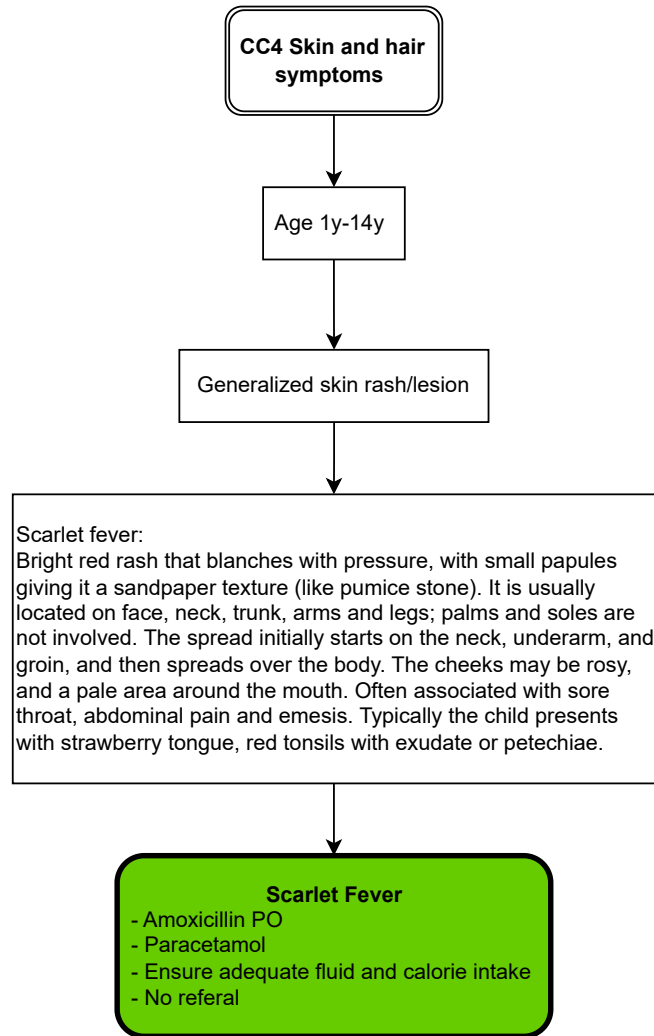
**CC4 Skin and hair  
symptoms**

Head lice (Pediculosis) :  
Excoriated papules and/or nits,  
nymphs, lice in hair. Very itchy

**Pediculosis (Head lice)**

- Benzyl benzoate emulsion (lice)
- Advice on personal hygiene
- Lice household management advice
- No referral





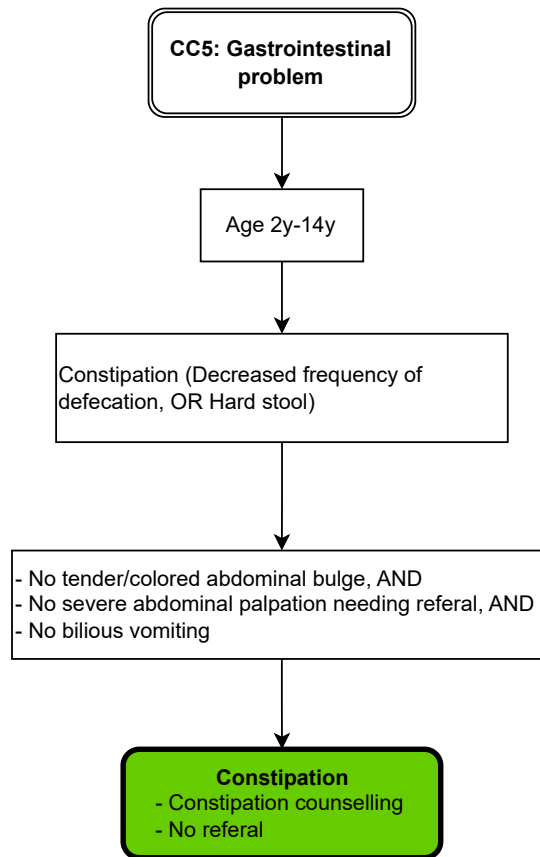
**CC4 Skin and hair  
symptoms**

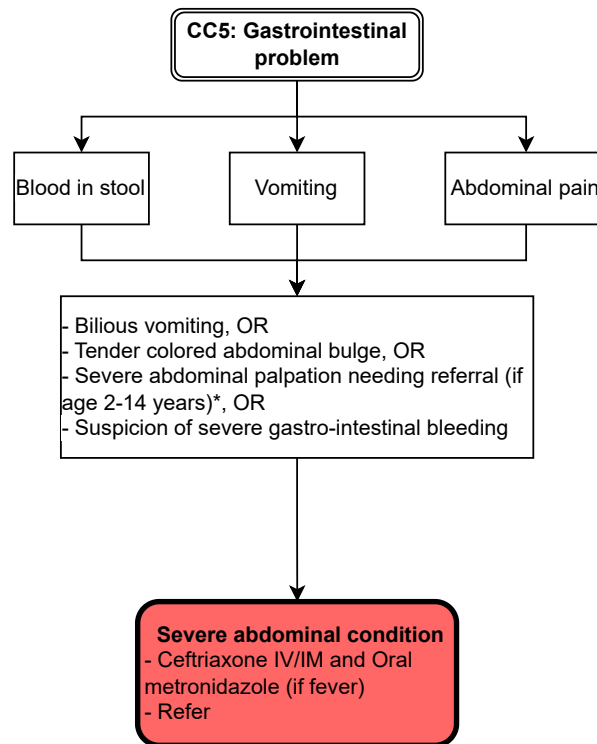
- Localized skin rash/lesion, OR
- Generalized skin rash/lesion

Heat rash can present as :

- Miliaria rubra : Red papules 2-4mm on a red rash. Sometimes causes itching
- Miliaria crystallina : Clear, superficial vesicles 1-2mm that look like water droplets found most often on the head, neck and upper trunk
- Caused by blocked sweat ducts, most often in newborns and those wearing tight fitted clothes

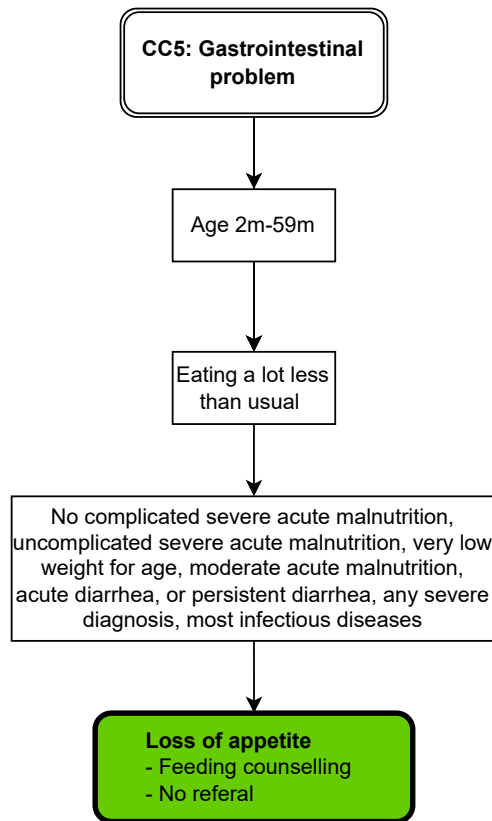
- Heat rash (Miliaria crystallina/rubra)**
- Heat rash guidance
  - No referral

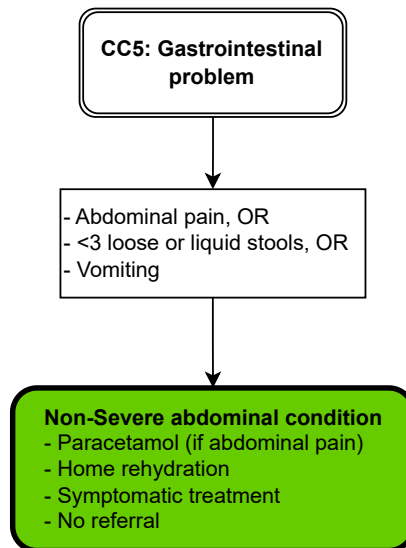




\*Severe abdominal palpation needing referral = Diffuse rebound tenderness. Pain to even light touch. Specific signs of appendicitis: Right lower quadrant tenderness or rebound tenderness, accentuated when jumping on right foot, pain migrating from the umbilical region associated with fever.



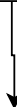




**Exclusions:**

Excluded by: Acute diarrhea, persistent, severe abdominal condition, severe or some dehydration, constipation

**CC5: Gastrointestinal  
problem**



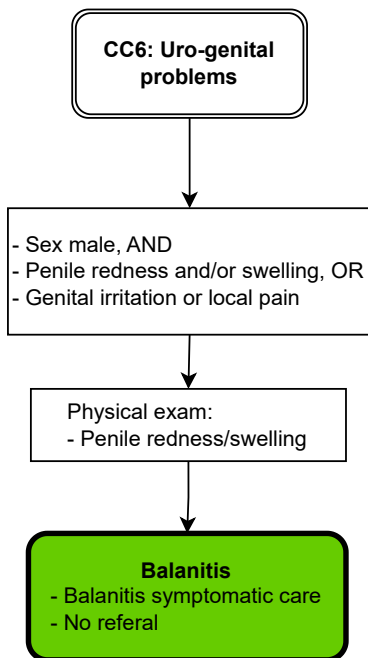
Age 1y-14y



- Anal itching, OR  
- Worms in stool



**Oxyuriasis**  
- Mebendazole (therapeutic)  
- No referral



**CC6: Uro-genital problems**

Age 2y-14y

- Sex female, AND
- No menarche (ask if  $\geq 8y$ ), AND
- No sexual contact (ask if  $\geq 12y$ ),

- No fever, AND
- Dysuria, OR
- Abnormal vaginal Discharge, OR
- Genital itching/burning

Normal urinary analysis (if dysuria)

**Vulvovaginitis**

- Vulvovaginitis care
- Metronidazole if no improvement after hygiene counselling
- No referral

**Exclusions:**

Excluded by: Vaginal candidiasis

**CC6: Uro-genital problems**

Age 12y-14y

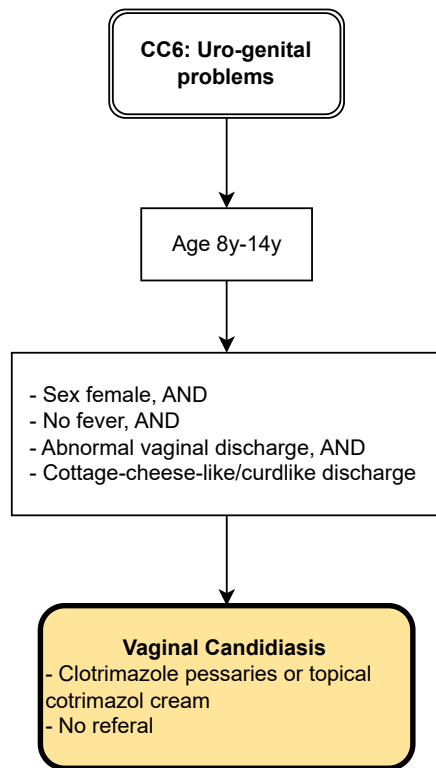
- Sex female, AND
- Sexual contact, AND
- No fever, AND
- Abnormal vaginal discharge, AND
- No cottage-cheese-like/curdlike discharge

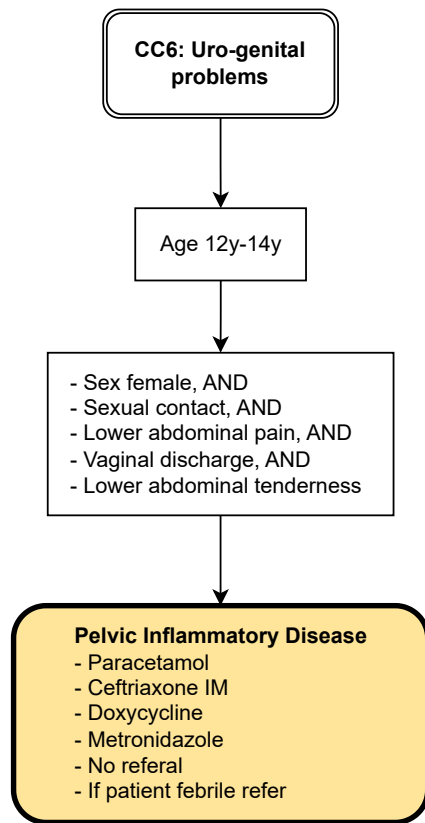
**Vaginal Discharge Syndrome (Presumed Gonorrhea/Chlamydia/Trichomoniasis/Bacterial Vaginosis)**

- Ceftriaxone IM
- Doxycycline
- Metronidazol
- Safe sex counselling
- Partner Management
- Ask for sexual abuse
- No referral

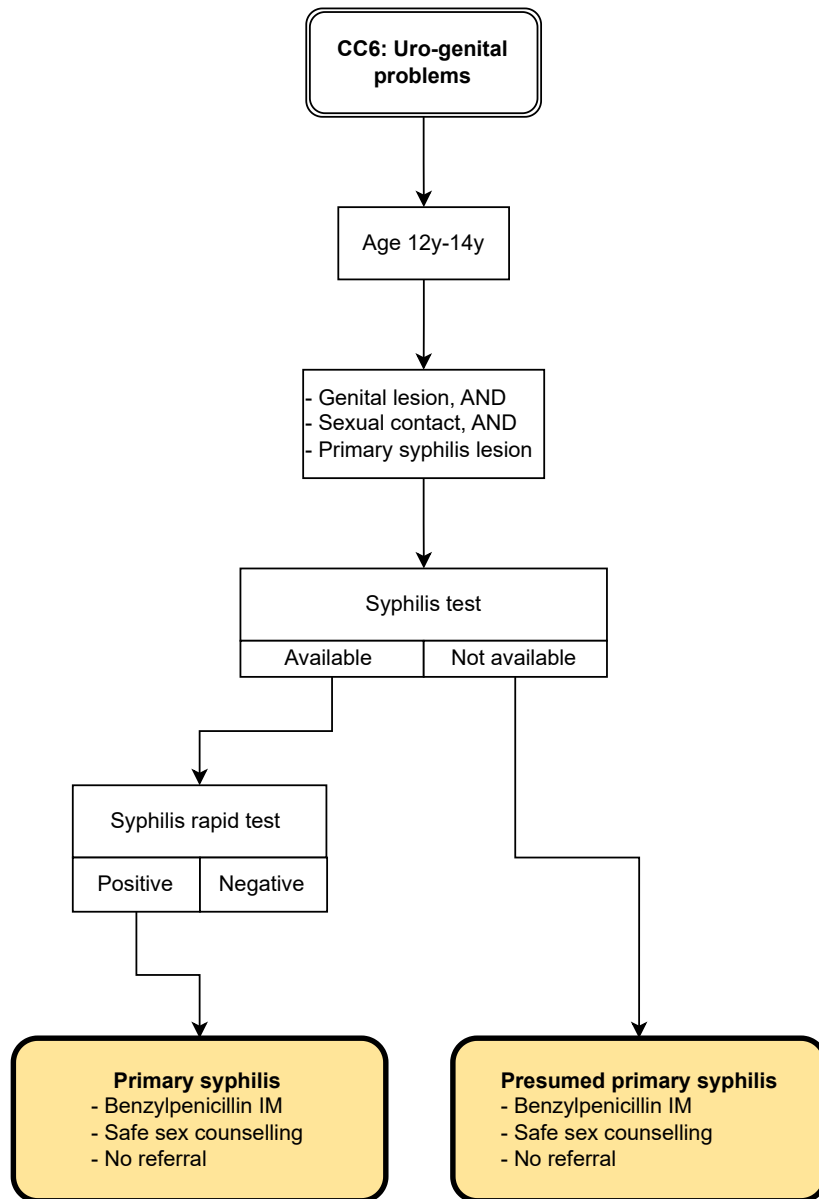
**Exclusions:**

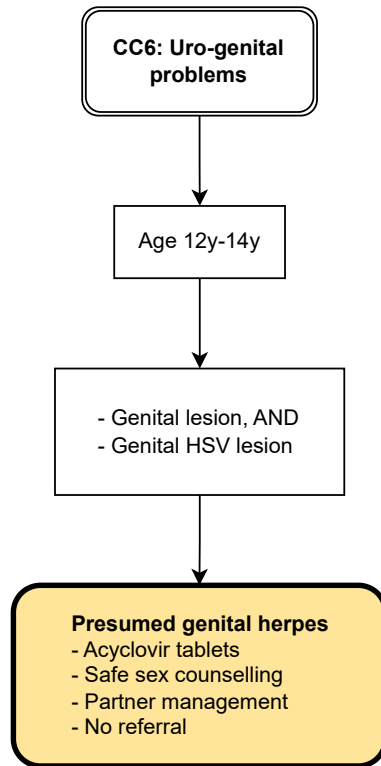
Excluded by: Pelvic inflammatory disease

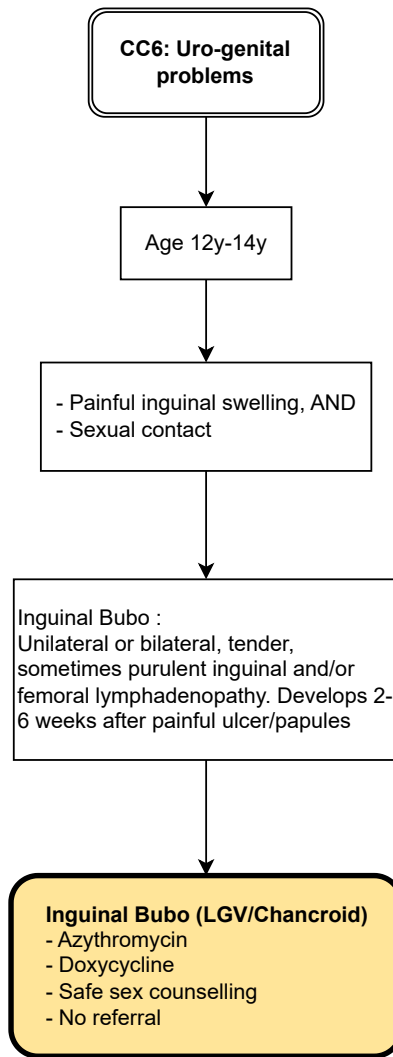


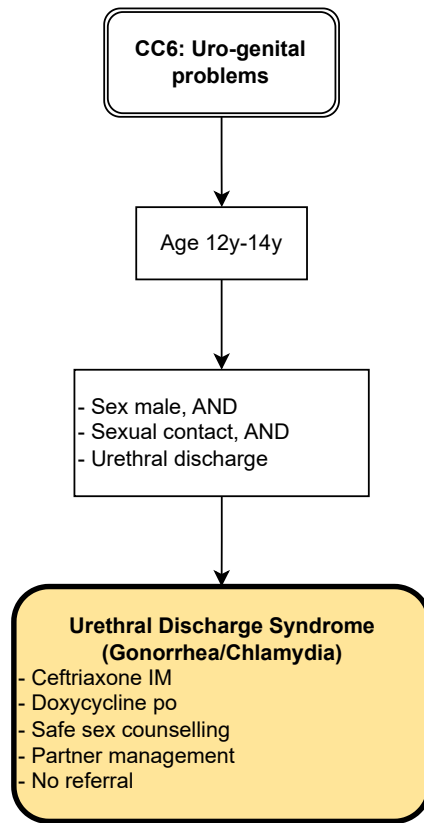


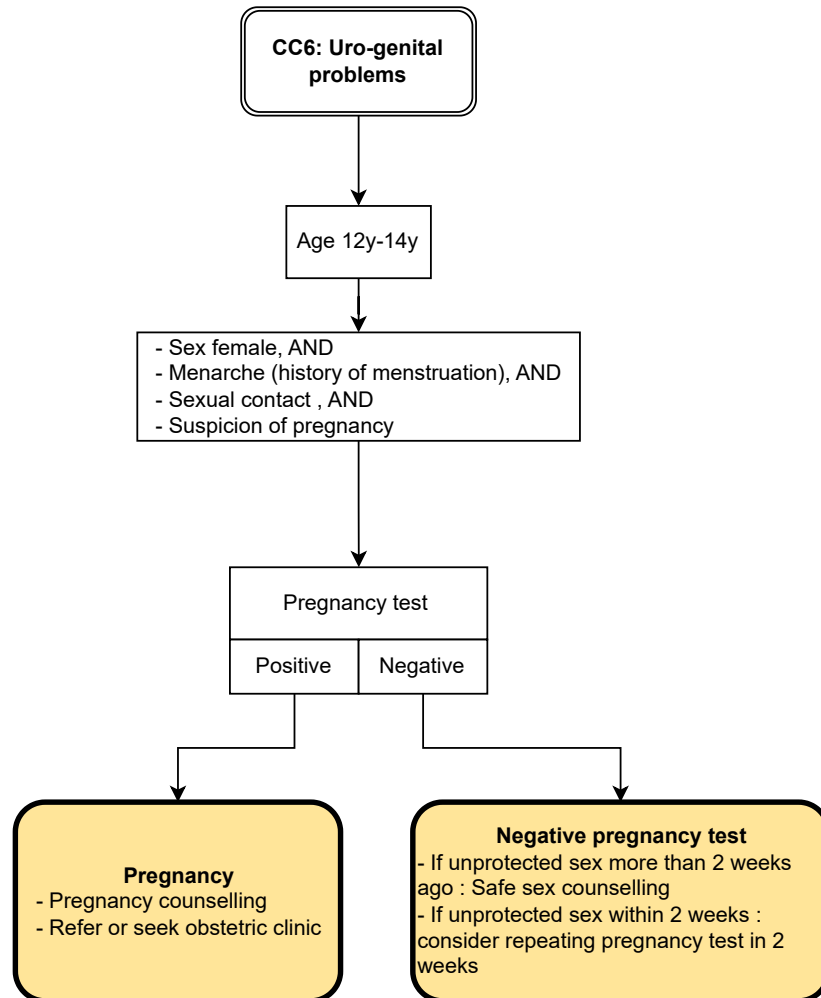


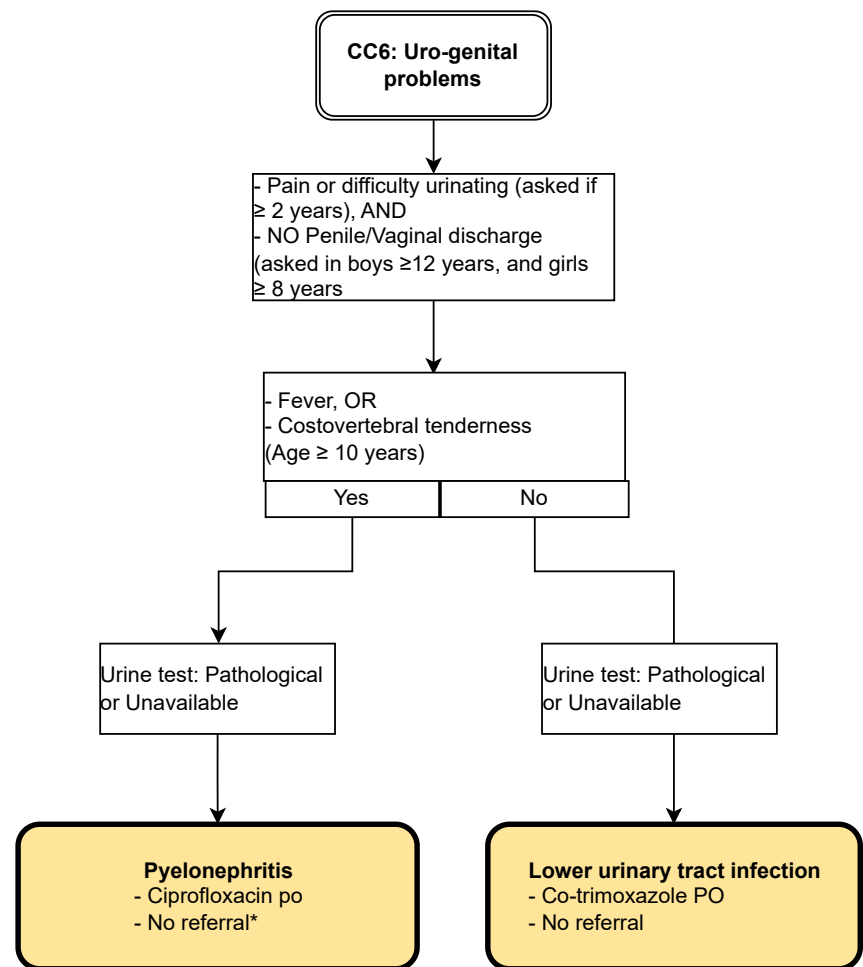




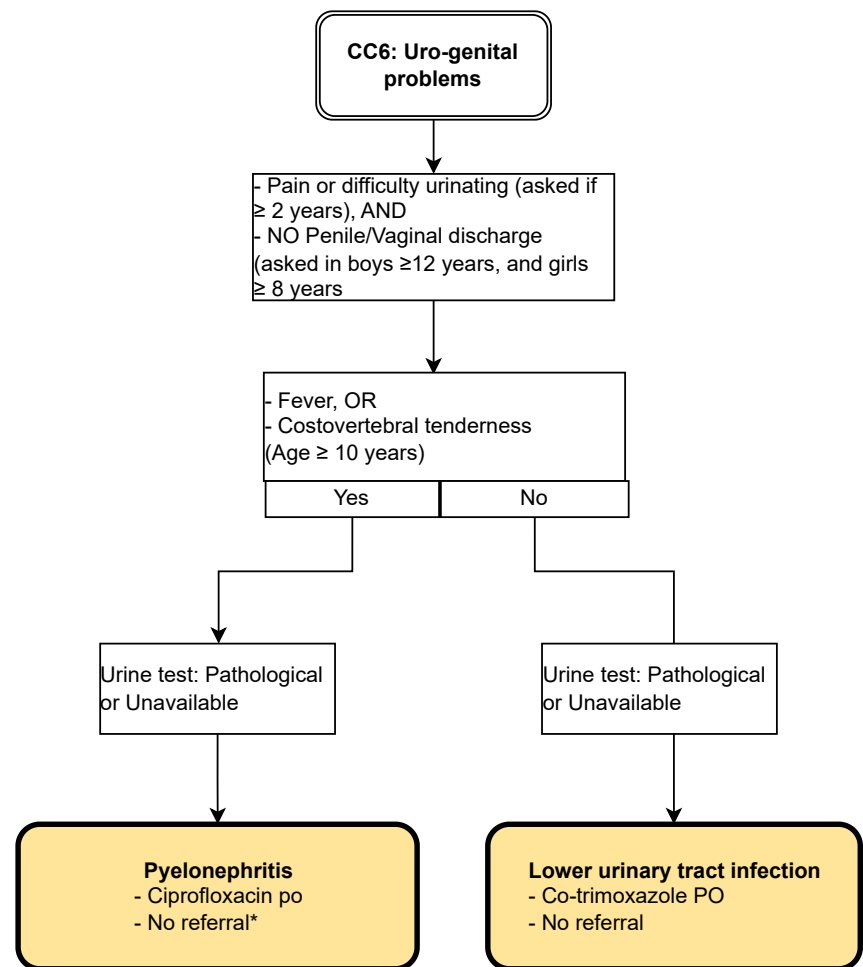




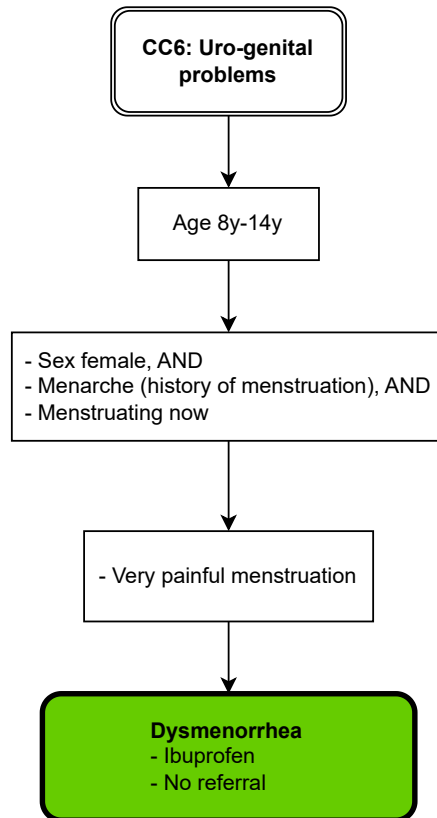




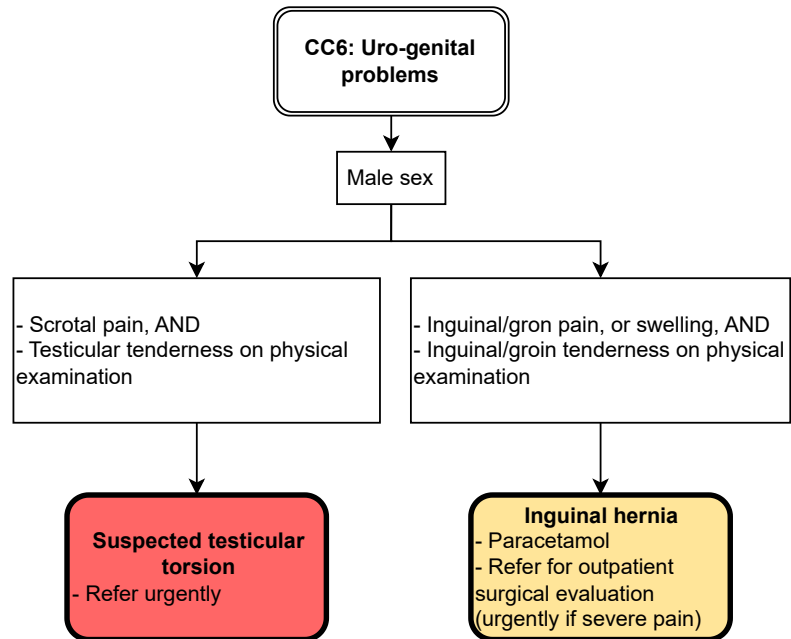
\* Referral + IV treatment if oral intake not possible and referral for children with no improvement (persisting dysuria and fever or costovertebral pain) following 3 days of antibiotic treatment for UTI or pyelonephritis.

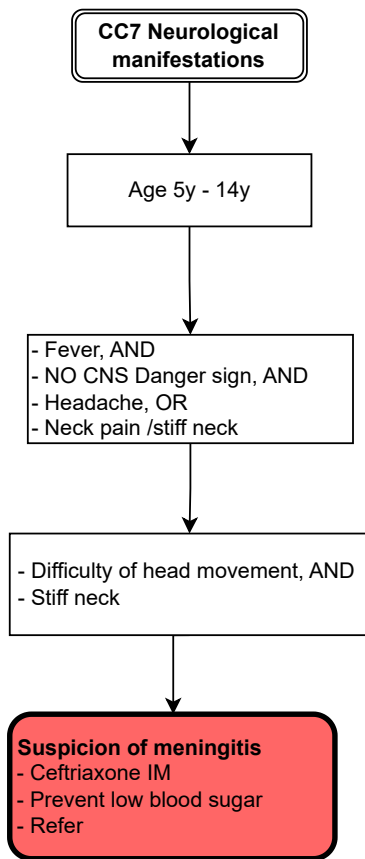


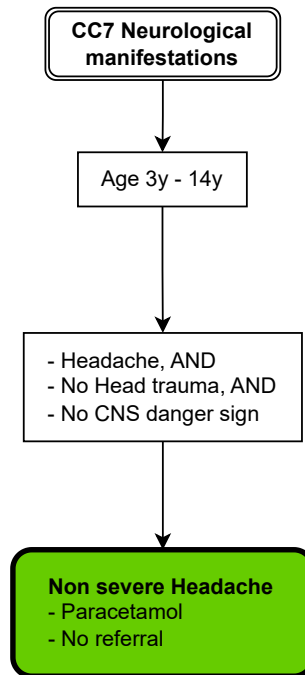
\* Referral + IV treatment if oral intake not possible and referral for children with no improvement (persisting dysuria and fever or costovertebral pain) following 3 days of antibiotic treatment for UTI or pyelonephritis.





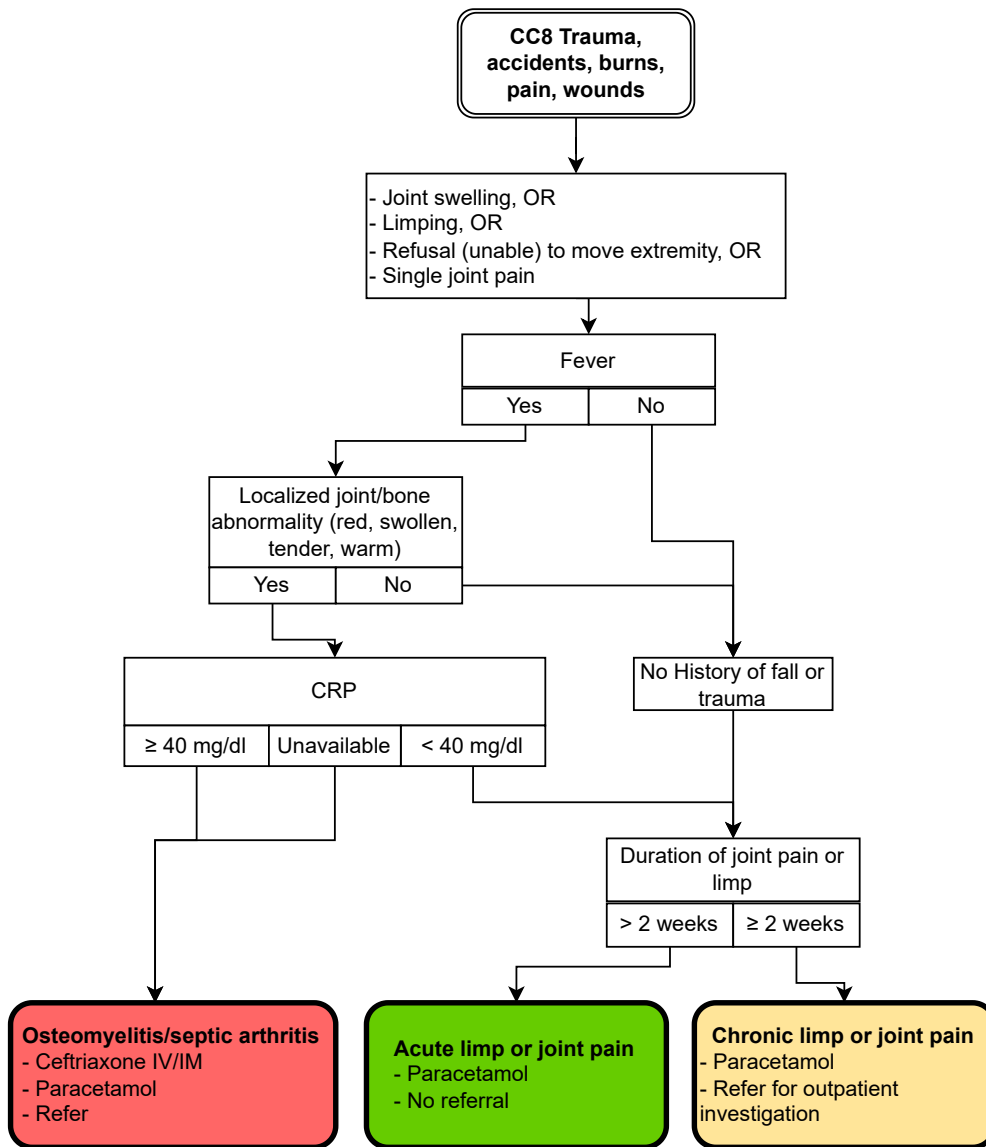


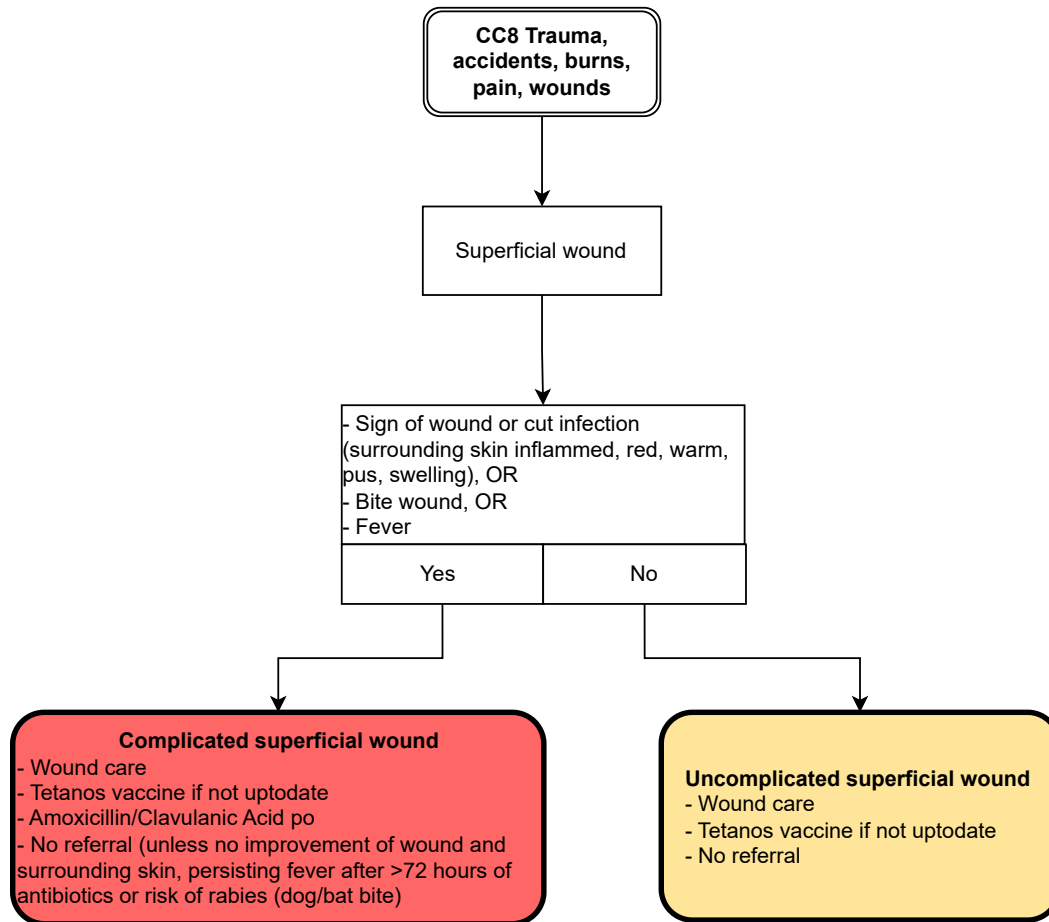


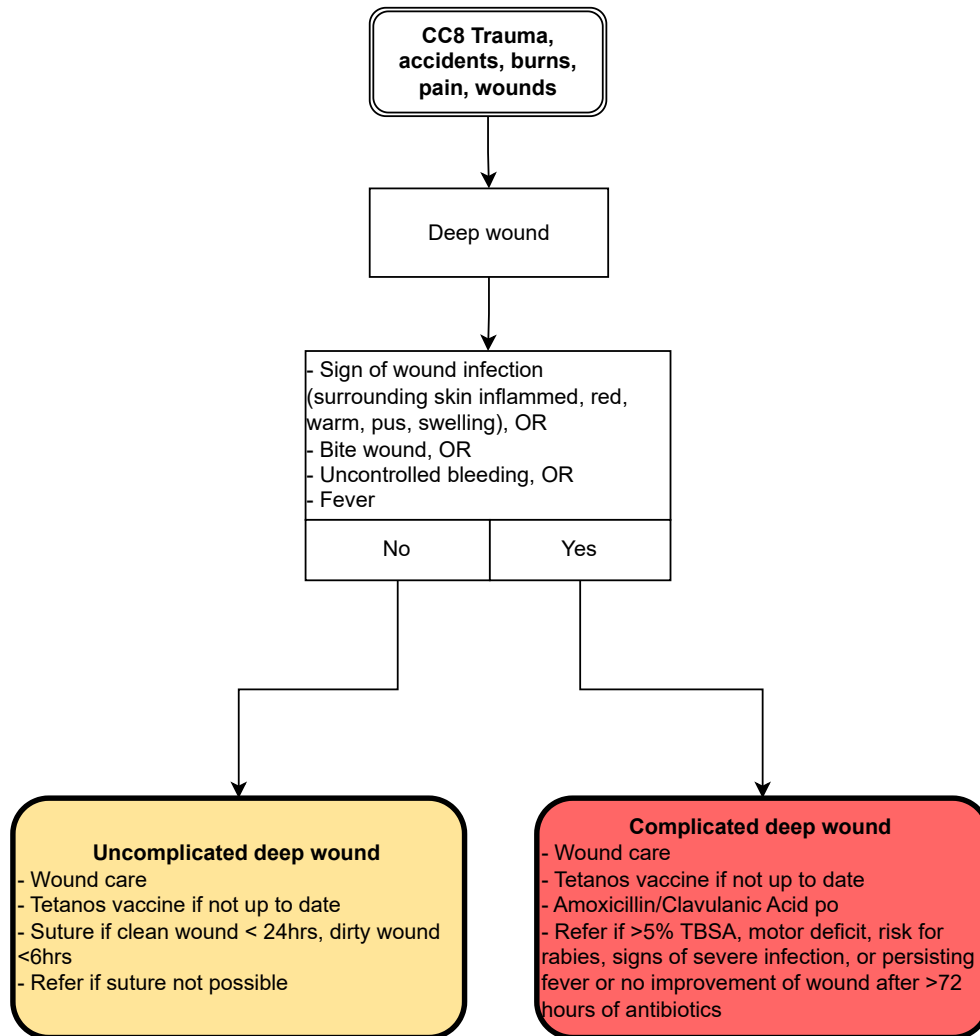


**Exclusions:**

Excluded by: Suspicion of poisoning, major trauma, Major/moderate/minor head injury, Carbon monoxide poisoning, Inhalation injury, suspicion of poisoning, Osteomyelitis/septic arthritis, anaphylaxis, complicated chicken pox, severe complicated measles, non specific viral rash, Severe eye disease, orbital cellulitis, mastoiditis, complicated acute ear infection, pelvic inflammatory disease, pyelonephritis, severe dehydration, moderate dehydration, severe abdominal condition, complicated prolonged fever, uncomplicated malaria, severe suspected malaria, severe malaria, suspected meningitis, very severe febrile disease, CNS Danger signs, severe anemia, complicated severe acute malnutrition







**CC8 Trauma,  
accidents, burns,  
pain, wounds**

- Extremity pain, OR  
- Joint pain, AND  
- History of recent fall or trauma

Suspicion of bone fracture  
or dislocation

Yes	No
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X-ray

Fracture	Dislocation	Clavicular fracture	Unavailable	No fracture or dislocation
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**Confirmed fracture**

- Paracetamol
- Immobilize
- Ampicillin/Gentamicin IM if open fracture
- Urgent referral if Severe pain, deformation, loss of motricity or feeling, or open fracture
- Non urgent referral if no severe pain, severe deformation or open fracture
- Consider no referral in child <5 years with distal forearm fracture that is not an open fracture or severe deformation

**Confirmed dislocation**

- Paracetamol
- Dislocation management
- Refer if dislocation management not possible

**Clavicular fracture**

- Paracetamol
- Clavicular fracture counselling
- Refer if signs of severity (open fracture, severe deformity, etc)

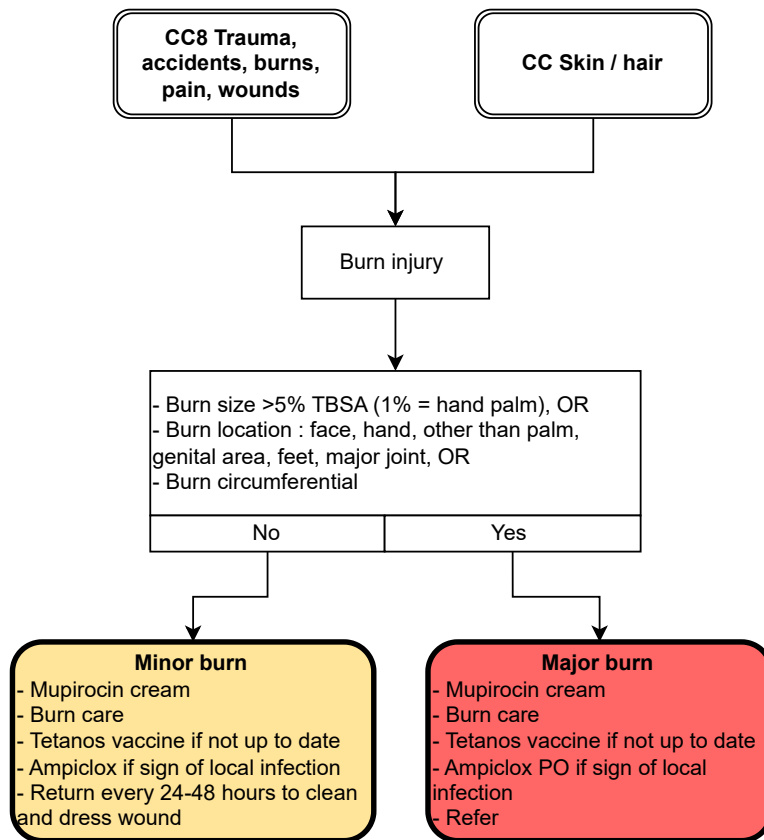
**Suspicion of fracture/dislocation**

- Paracetamol
- Immobilize
- Ampicillin/Gentamicin IM if open fracture
- Urgent referral if severe pain, severe deformation, or open fracture
- Non urgent referral if no severe pain, severe deformation or open fracture
- Consider no referral in child <5 years with distal forearm fracture that is not an open fracture or severe deformation

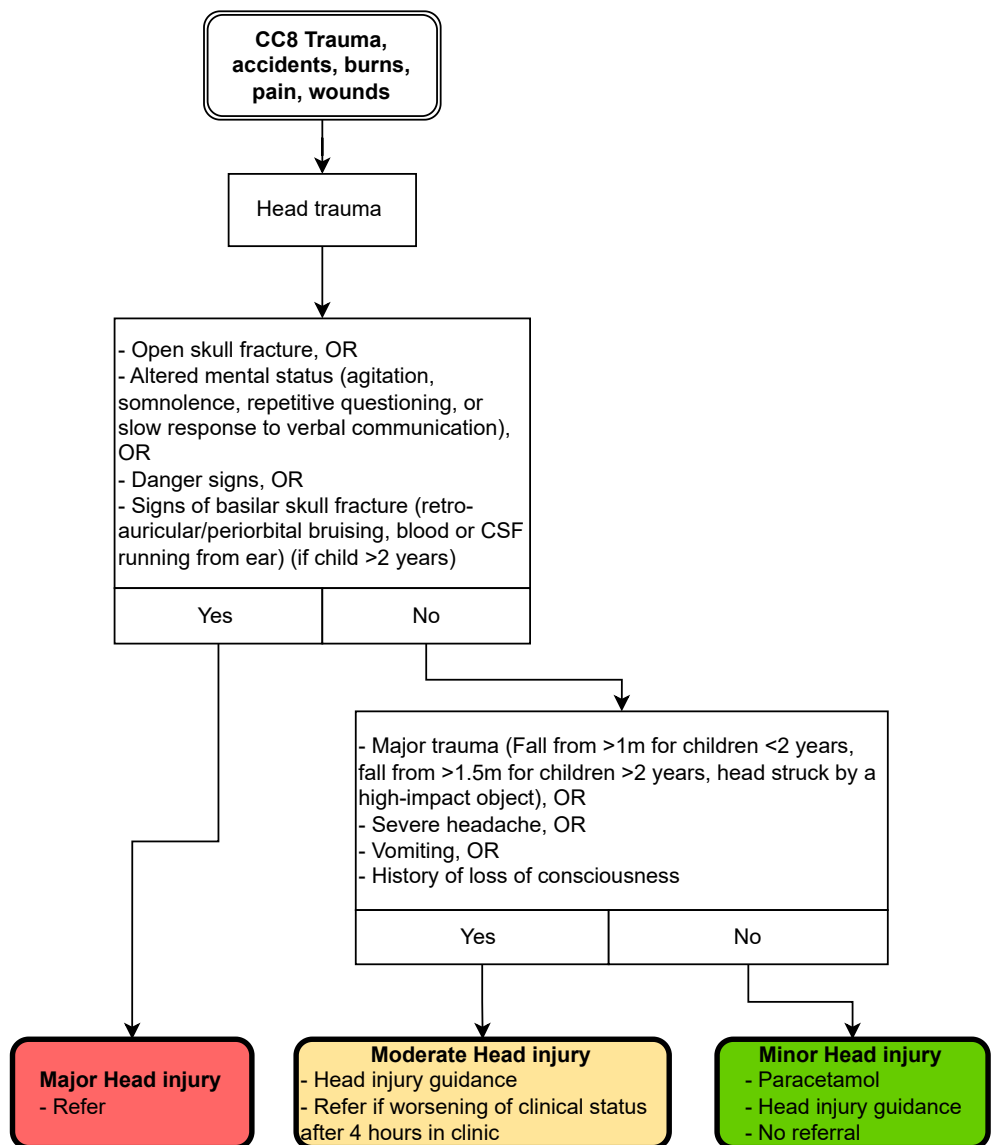
**Contusion**

- Paracetamol
- No referral (unless severe deformity or unable to weightbear)

<b>Exclusions:</b> Contusion excluded by major trauma
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**Exclusions:**

Moderate head injury excluded by major head injury and major trauma

Minor head injury excluded by major and moderate head injury; and major trauma

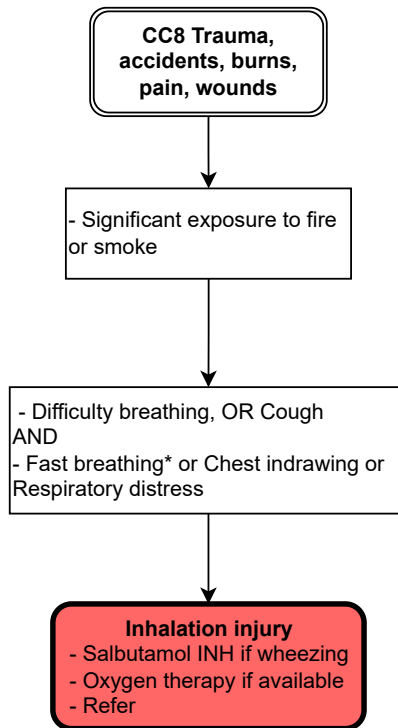
**CC8 Trauma,  
accidents, burns,  
pain, wounds**



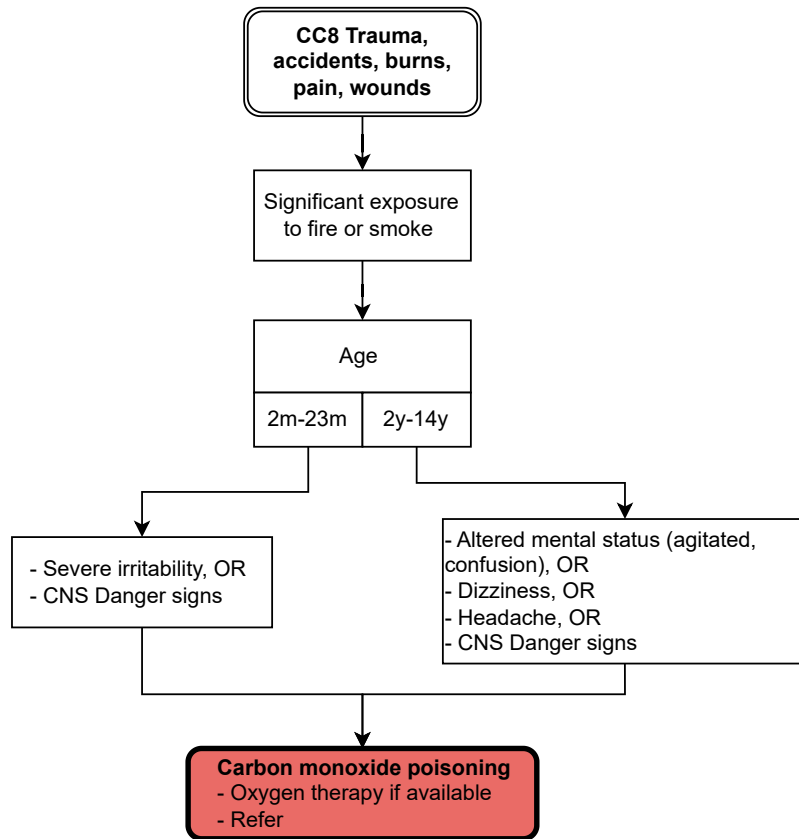
Major trauma (car accident, suspicion of  
multiple fractures, major bleeding)

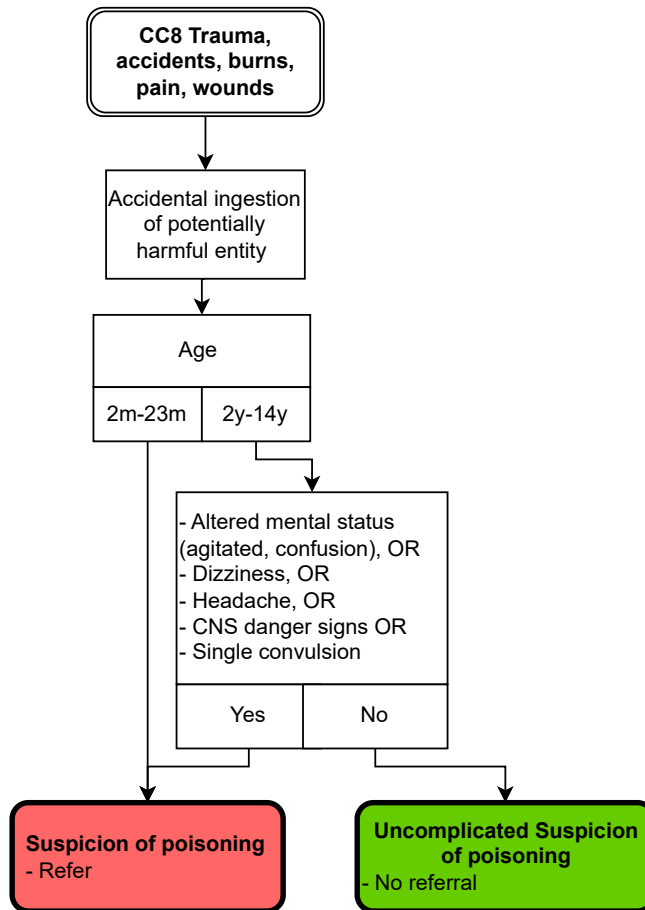


**Major trauma**  
- Refer  
- Control bleeding  
- Stabilize neck



\*Fast breathing: Respiratory rate 2-11m  $\geq 50/\text{min}$ , 12-59m  $\geq 40/\text{min}$ , 5-12y  $\geq 30/\text{min}$ , 13-14y  $\geq 20/\text{min}$





**CC10 Prevention  
and Screening**



Incomplete  
vaccination



**Incomplete vaccination**  
- Complete vaccinations  
- Refer to RCH

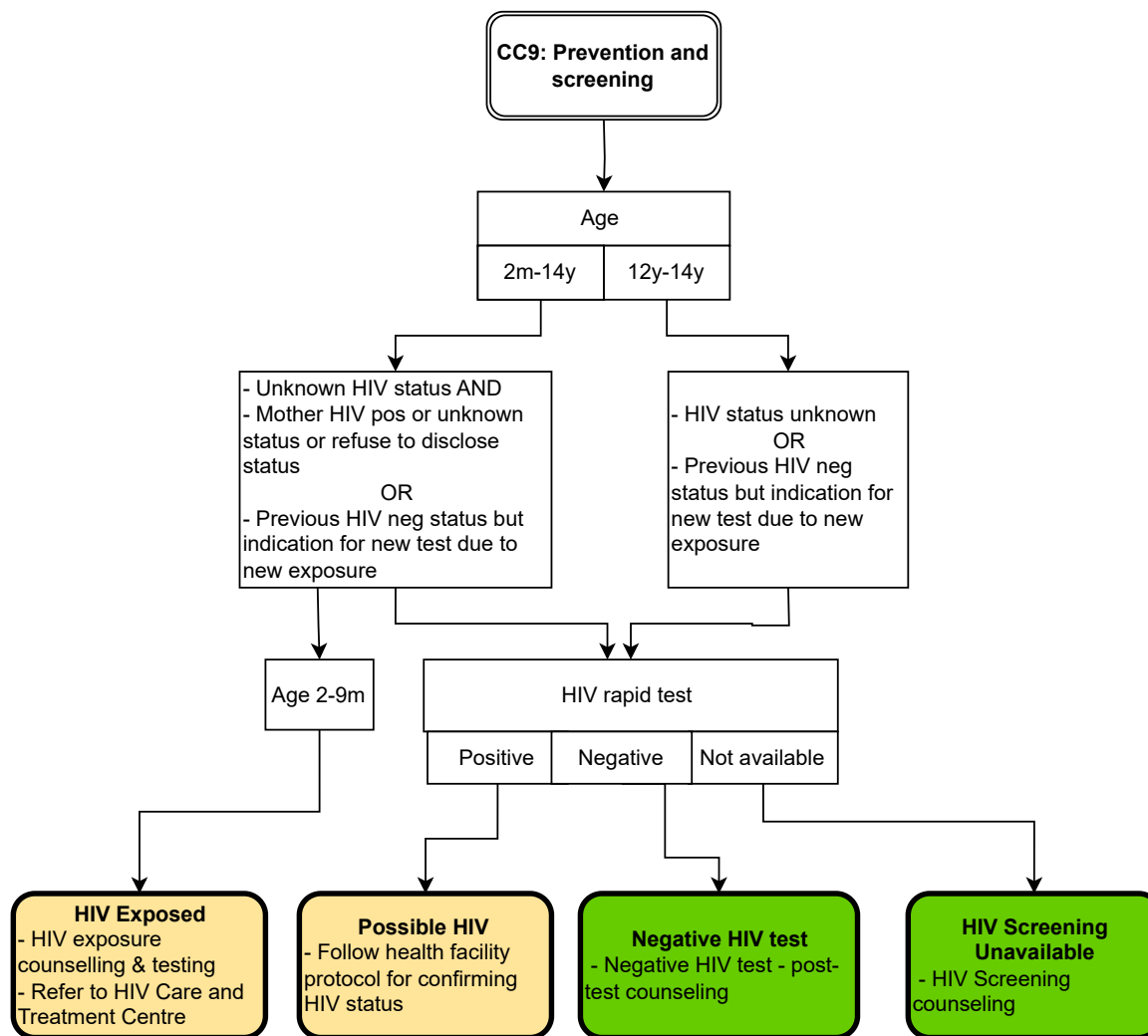
**CC10 Prevention  
and Screening**

Age 1y-14y

No Mebendazole or  
Albendazole in the last  
6 months

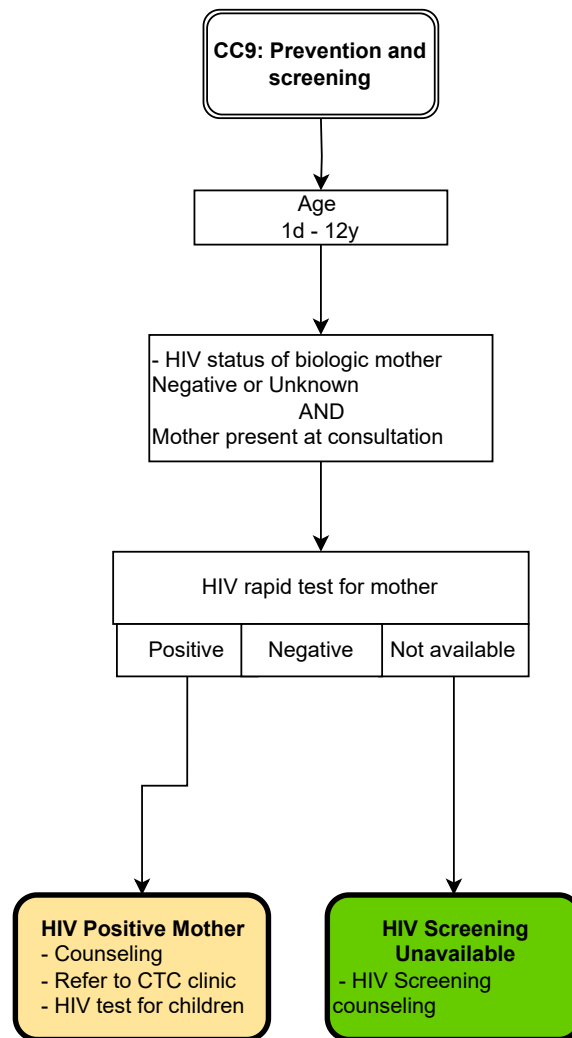
**Deworming**

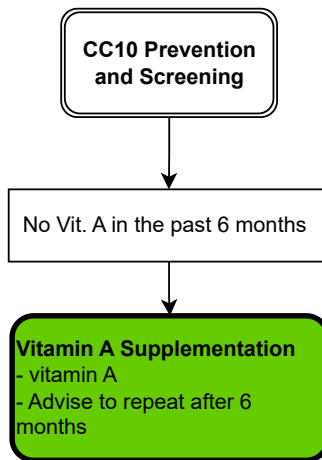
- Mebendazole (deworming)
- Advise to repeat after 6 months



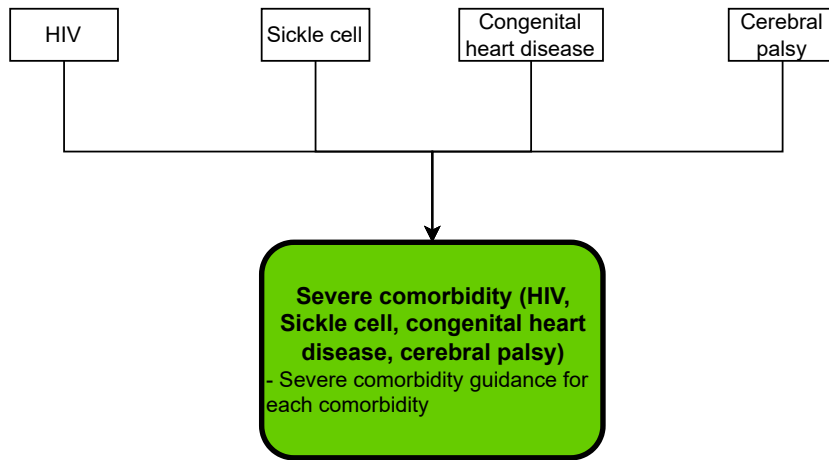
\*HIV rapid test only performed in children above 9 months







<p><b>Exclusions:</b> Excluded by: Measles, Severe complicated measles, or persistent diarrhea</p>
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**CC0: Universal Assessment**

Additional tests not proposed by algorithm?

Widal test

Stool analysis

Blood glucose test

Widal test

Positive

Negative

Stool microscopy

Trophozoites /  
Cysts

Ova

Other

Glucose test

< 2.5  
mmol/L

2.5 - 3  
mmol/L

3-7  
mmol/L

7-11.1  
mmol/L

≥ 11.1  
mmol/L

Severe  
malnutrition

Fasting

**Typhoid fever**

- PO Ciprofloxacin (2nd line Azithromycin)
- No referral

**Intestinal parasitic infection: protozoa**

- PO Metronidazole po
- No referral

**Intestinal parasitic infection: nematode**

- PO Mebendazole (2nd line albendazole)
- No referral

**Hypoglycemia**

- Dextrose IV bolus
- Refer urgently

**Hyperglycemia**

- Refer for outpatient evaluation of diabetes