Expanding Access to effective malaria treatment using the Integrated Management of Childhood Illness

Where is care provided mostly for children?

- Home
- 1st level health facility
- Specialized hospital

Number of children seen

Specialised Care

Equipment, supplies, Case management skills

World Health Organization
The IMCI Strategy

- Improving case management skills of HWs
- Improving overall health systems
- Improving family and community health practices

Deaths among children under-five in the world - 2008

Major causes of death in neonates and children under-five in the world - 2008

- Neonatal deaths
- Other 11%
- Congenital anomalies 8%
- Prematurity and low birth weight 29%
- Birth asphyxia and birth trauma 23%
- Neonatal infections 25%
- Diarrhoeal disease 2%
- Prematurity and low birth weight 29%
- Other 11%
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35% of under-five deaths are due to the presence of undernutrition

Current Conditions Covered by IMCI Case Management

- Acute respiratory infections
- Diarrhoea - dehydration, persistent diarrhoea & dysentery
- Meningitis & sepsis
- Malaria
- Measles
- Ear infection
- Malnutrition
- Anaemia
- Other adaptations - wheeze, Dengue haemorrhagic fever, Sore throat and HIV

IMCI Case Management Process

**FIGURE 2**

1. **ASSESS THE CHILD**
   - Check the child for danger signs
   - Then ask:
     - Does the child have cough or difficult breathing?
     - Does the child have diarrhoea?
     - Does the child have fever?
     - Does the child have an ear problem?
   - Then check the child for malnutrition and anaemia
   - Then check the child for other problems

2. **CLASSIFY ILLNESS AND IDENTIFY TREATMENT**

3. **TREAT THE CHILD OR REFER**
   - Teach the mother to give oral fluids at home (syrup, rice-water, sugar, milk)
   - Teach the mother to ensure the child eats at home (tea, etc.
   - Give intravenous fluids to child (intravenous)
   - Give increased fluids for diarrhoea and continue feeding
   - If the child needs to be referred, give appropriate pre-referral treatment

4. **CLOSEOUT THE EPISODE**
   - Using the process: ASK, PHASE, ASK, CHECK
     - Food and feeding problems
     - Fluid intake during illness
     - When to return
     - Her own health

5. **FOLLOW UP**

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For any "yes" answer:
ASK further questions
LOOK, LISTEN, FEEL
Based on this identify the illness.
IMCI Malaria Case Management Process

- Identification of severe, and non-severe disease, and those for home care
- Provision of appropriate treatment and care
  - pre-referral treatment
  - appropriate referral
  - appropriate Rx for non-severe disease
  - follow up
  - Advice for home care

Case management algorithm: Chart Booklet

- Urgent pre-referral treatment and referral or
- Specific medical treatment and advice or
- Simple advice on home management
New Recommendation on Malaria Diagnosis

- Prompt parasitological confirmation by microscopy or alternatively by Rapid Diagnostic Tests (RDTs) is recommended in ALL patients suspected of malaria before treatment is started.
Clinical Benefits of Parasitological Based Diagnosis

- Improves clinical management of non-malarial illnesses;
- Supports the exclusion of malaria in the differential diagnosis of febrile illness;
- Reduces malaria over-diagnosis and unnecessary antimalarial treatments;
- Improves rational use of antimalarials and reduce the risk of adverse drug reactions;
- May improve adherence to treatment.

Clinical Risks of Parasitological Diagnosis

- Misdiagnosis in case of false-negative results may be fatal in non immune especially children < 5 yrs, pregnant women and travelers;
- Over-reliance on positive malaria results may divert attention from concomitant diseases;
- Reliance non quality assured microscopy/RDTs.
Context for the proposed IMCI Adaptation

- Malaria risk as currently defined in children < 5 yrs with fever or history of fever seen in 1st level facility:
  - high risk ≥ 5% positive slide rate
  - Low risk < 5%.
- Universal availability of malaria test (RDTs or microscopy) at 1st level facilities
- Maintaining the IMCI concept - focusing on causes of mortality and clinical decision making.
- Malaria test (RDT or microscopy) will NOT be done in patients with danger sign or stiff neck needing urgent referral.

Proposed IMCI Adaptation

Do malaria test:
- If no general danger sign.
- Malaria high risk
- If no obvious cause of fever in low malaria risk

Positive test = Malaria
**IMCI Fever Case Management at 1st Level Facility**

- Comprehensively assess a child with febrile illness
- Identify severe disease, uncomplicated malaria, and other common causes of fever.
- Provide appropriate case management:
  - pre-referral care and appropriate referral of severe disease
  - appropriate treatment and follow up for uncomplicated malaria
  - appropriate care for other common causes of fever
  - Referral of prolonged fever for further assessment
IMCI Concept for Management of Febrile Illness (1)

- Integrated management covers > 75% of common childhood illness killers
- Fever associated with any severe illnesses is identified by use of danger signs for classification and treatment:
  - Severe Malaria, Meningitis, Septicaemia, Sepsis
- Other secondary cases of fever are identified and management through main symptoms
  - pneumonia, measles, dysentery, ear infections, runny nose
- Prolonged fever (> 7 days) referral for further assessment
  - e.g. - TB, HIV/AIDS, UTI, relapsing fever, typhoid, osteomyelitis etc.

Community Case Management (CCM) of malaria

- Capacity of CHW to test for malaria (RDTs) and treat (ACTs) being developed as part of CCM
  - Training materials field-tested and are being used in countries
  - Training video on RDT at point of care completed
- Need to coordinate skills building and continued systematic training and supervision of CHWs on CCM
Conclusions

- The new recommendation on prompt parasitological diagnosis is welcome
- IMCI has been swiftly adapted in collaboration with GMP and RBM

➤ Working together, we can prevent the excess childhood mortality from malaria