

Integrated Management of Neonatal and Childhood Illness Strategy: An Approach for Hypothermia in Newborns

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ABSTRACT

Every 1000 children born do not live to be five years of age of note, 70% of all deaths in children can be attributed to easily preventable and treatable diseases namely: ARI Acute respiratory infections (mostly pneumonia), Diarrhoea, Measles, Malaria, Malnutrition & Anaemia, and Tuberculosis. Often children succumb to a combination of these conditions - with most children presenting in health facilities with the combined signs and symptoms of more than one disease. Evidence for various assessments has shown that many of these children are not comprehensively assessed, treated and given the appropriate advice. Recognizing the need to improve on the care of these children, WHO and UNICEF developed the Integrated Management of Newborn and Childhood Illnesses (IMNCI) strategy which emphasizes on integrated case management of the most common childhood diseases. Kenya in the year 2000 adopted the IMNCI strategy and evaluation¹.

KEYWORDS: *Word health organization (WHO), Integrated Management of Newborn and Childhood Illnesses (IMNCI), United national international child emergency fund (UNICEF) Acute respiratory infection (ARI), primary health care (PHC)*

INTRODUCTION

The World Health Organization (WHO) developed the integrated management of childhood illness (IMCI) strategy to reduce mortality and morbidity and to improve quality of care by improving the delivery of a variety of curative and preventive medical and behavioural interventions at health facilities, at home, and in the community². More than 7.5 million children younger than age five living in low- and middle-income countries die every year. Child mortality reportedly halved from 12 million to <6 million deaths globally during the Millennium Development Goals period from 1990 to 2015. The global strategy of the Integrated Management of Childhood Illness (IMCI), launched by WHO and UNICEF in 1995, to end preventable child mortality may be partially credited for this success. The strategy was devised as a three-pronged approach: (1) improving health worker performance at primary healthcare (PHC) level, which was subsequently expanded to the referral level, (2) strengthening

health system performance and (3) enhancing community and family practices. IMCI was originally intended for implementation in high-mortality and predominantly low-income settings (with an under-5 mortality rate of >40/1000), with the primary aim of reducing mortality. In the 1990s, the World Health Organization (WHO) developed a strategy called integrated management of childhood illness (IMCI) to address these problems. This strategy aims to prevent death and disease while improving the quality of care for ill children up to the age of five. It consists of three parts.

- Improving the skills of health care workers by providing training and guidelines.
- Improving how health care systems are organized and managed, including access to supplies.
- Visiting homes and communities to promote good child rearing practices and good nutrition, while encouraging parents to bring their children to a clinic when the children are ill.

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The WHO encourages countries to adapt the IMCI strategy to their own national settings. Types of childhood illnesses prioritised and ways in which services are delivered may vary from country to country.

This child survival strategy follows a broad implementation arrangement with multiple child health impact pathways. It mostly works through reductions in deaths from five causes: pneumonia, diarrhoea, malaria, measles, and malnutrition. Countries that are implementing all the three pillars are classified as “full implementers.”

IMNCI strategy aims to improve child survival and development through three main pillars:

- Training of health workers on improved diagnosis and treatment measures;
- Health systems strengthening for child health services delivery including adequate stocking of drugs, supervision, and enhanced monitoring and evaluation; and
- Community and household interventions that address predisposing factors to childhood illnesses in the first pillar, healthcare workers, including doctors, nurses and auxiliary staff, receive either six or eleven days of pre-service or in-service training on clinical management of childhood illnesses.
- To evaluate the effects of programs that implement the IMCI strategy in terms of death, nutritional status, quality of care, coverage with IMCI deliverables, and satisfaction of beneficiaries.

What is IMNCI?

The Integrated Management of Newborn and Childhood Illnesses (IMNCI) case management approach offers simple and effective methods to comprehensively prevent and manage the leading

causes of serious illnesses and mortality in children below five years. With IMNCI, sick children or young infants are not only treated for the signs and symptoms they present within a health facility, but are also assessed for the other disease conditions they may be suffering from.

IMNCI is based on the following principles:

- All sick children aged up to 5 years are examined for general danger signs and all young infants are examined for signs of very severe disease. These signs indicate the need for immediate referral or admission to hospital.
- All sick children must be routinely assessed for major symptom, nutrition and immunization status, feeding problem and other problem.
- Based on presence of selected clinical sign, the child is placed in a classification are colour code “pink” that suggest referral, “yellow” that indicate initiation of treatment in health facility and “green” indicating home management.
- Children and infants are then assessed for main symptoms. For the older children, the symptoms include cough, difficulty breathing, diarrhoea, fever, TB, HIV, ear infections, anaemia, measles and malnutrition.
- A combination of individual signs then leads to the child’s or young infant’s classification within one or more symptom groups.
- It encourages active participation of caretakers in treatment of children.
- Essential drugs are then used to treat the children or young infants. Lastly counselling of caregivers regarding home care, appropriate feeding and fluids and when to return to facility - immediately or follow-up, is done.

IMNCI 6 major steps and case management process



Assessment: - The assess column in the chart booklet describes how to take history and do a physical exam

- Routinely assess for general danger signs (or possible bacterial infection in a young infant) - a general danger sign indicates that a child has a serious and life-threatening condition that requires urgent attention
- Assess for common illnesses in children or young infant’s by asking questions about common conditions, examining the child or young infant and checking the need for other routine services such as immunization and nutrition.
- Look for other health problems

Classification: - The classify (signs and classify) column of the chart lists clinical signs of illnesses and their classification. “Classify” in the chart means the health worker has to make a decision on the severity of the illness. Healthcare workers will be able to classify children or young infants’ illnesses using the colour- coded triage system. The classifications contained in the booklet are based on whether the diagnosed illness are:

| S. NO | COLOUR | CLASSIFICATION |
|-------|--------|--|
| 1. | PINK | Severe classification needing admission or pre referral treatment and referral |
| 2. | YELLOW | A classification needing specific medical treatment and advice |
| 3. | GREEN | Not serious and in most cases no drugs are needed, simple advise on home management given. |

Identify Treatment: - The identify treatment column helps the healthcare workers to quickly and accurately identify treatments for the classifications selected. If a child or young infant has more than one classification, the healthcare worker must look at more than one table to find the appropriate treatments.

Treat:- The treat column shows how to administer the treatment identified for the classifications. Treat means giving the treatment in the facility, prescribing drugs or other treatments to be given at home and also teaching the mother/ caregiver how to administer treatment at home. The following rules should be adhered to.

- If a child or young infant requires admission or referral (pink classification), it is important the essential treatment is offered to the child or young infant before admission or referral.
- If the child or young infant requires specific treatment (yellow classification), develop a treatment plan, administer drugs to be given at the facility and advise on treatment at home and counsel the mother/ caregiver accordingly.
- If no serious conditions have been found (green classification), advise the mother/caregiver on care of child at home.

Counsel: - If follow up care is indicated, teach the mother/caregiver when to return to the clinic. Also teach the mother/ caregiver how to recognize signs indicating that the child or young infant should be brought back to the facility immediately.

Follow up: - Some children or young infants need to be seen more than once for a current episode of illness. Identify such children or young infants and when they are brought back, offer appropriate follow up care as indicated in the IMNCI guidelines and also reassess the child or young infant for any new problems. The guidelines also aim to empower healthcare workers to:

- Correctly interview caregivers.
- Provide counselling for appropriate preventative and treatment measures.
- Correctly counsel the mother about her own health

To improve access and quality of care for newborns and children in primary health care services, WHO and UNICEF designed the Integrated Management of Childhood Illness (IMCI) strategy. The IMNCI strategy **aims at improving health worker skills, improving the health system and improving family and community practices**. The aim is to strengthen prevention and management of common childhood illnesses, including in the Newborn period, and support children's healthy growth and development.⁵

The integrated case management process

Check for danger signs

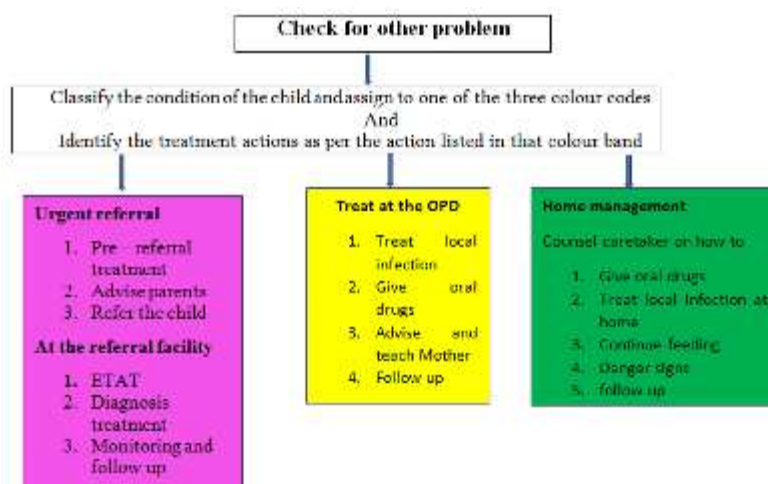
- Convulsions
- Lethargy /unconsciousness status
- Inability to drink /breastfeed problem
- Vomiting

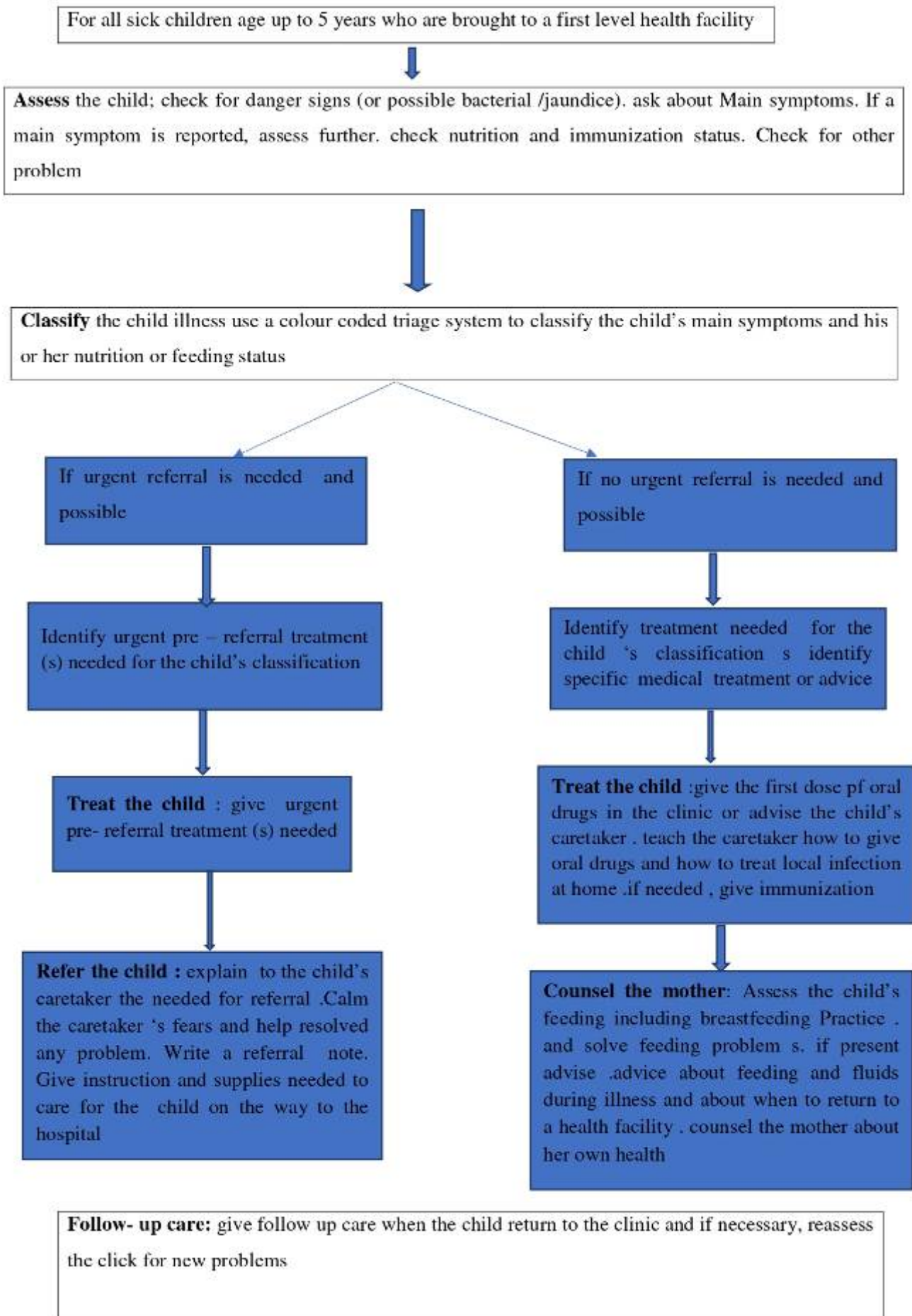
Assess main symptom

- Cough / difficulty in breathing
- Diarrhoea
- Fever
- Ear problem

Assess

- Nutrition
- Immunization
- Potential feeding





Management of hypothermia

If a baby has a temperature of less than 36.5°C the baby has 'hypothermia'. Confirm the diagnosis of hypothermia by recording actual body temperature

Mild hypothermia (36.0°C to 36.4°C)

- Skin-to-Skin contact is the best way to keep a baby warm and the best way to 're-warm' a baby who is cold to touch.

Moderate hypothermia (32°C to ≤ 36.0°C)

- Warm the young infant using Skin to Skin contact by the mother or by the father or any other adult. Ensure that temperature of the room where the rewarming takes place is at least 25°C.
- If Skin to Skin contact is not possible, radiant warmer may be used if available.
- Encourage mother to breastfeed more frequently.
- Check blood glucose and treat if hypoglycaemia detected. If the baby's temperature is not up to 36.5 0C or more after 2 hours of 'rewarming', reassess the baby for other problems.

Severe hypothermia (<32 C)

- Warm immediately using a pre warmed radiant warmer.
- Remove cold or wet clothing. Dress in warm clothes and a cap, and cover with a warm blanket. Check and treat for hypoglycaemia.
- Treat for sepsis.
- Start IV fluids.
- Provide oxygen if indicated (chart 7).
- Monitor temperature of the baby every ½ hourly.

OTHERS MANAGEMENT

Do not bathe Newborn with low body temperature; instead sponge with lukewarm water to clean (in a warm room). Keep the baby in skin-to-skin contact on the mother's chest or at her side, in a warm, draught-free room. Provide skin to skin contact (Kangaroo mother care) as much as possible, day and night.

Start breast feeding within the first hour as soon as the baby shows signs of readiness to feed. Let the infant breastfeed on demand if able to suck.

When not in skin to skin contact or if this is not possible, - Warm the room (>25°C) with a home heater –

Clothe the young infant in 3-4 layers of warm clothes, cover the head with a cap (include gloves and socks) and wrap him / her in a soft dry cloth and cover with a warm blanket or shawl.

Let the baby and mother lie together on a soft, thick bedding. - Change clothes (e.g., napkins) whenever they are wet.

Feel the feet of the baby periodically baby's feet should be always warm to touch ¹⁰

CONCLUSION

The IMNCI through reduce the Newborn an infant mortality and morbidity. this topic concluded introduced the imnci and what is the imnci, explain the steps of imnci and management process through assess, classification, identify treatment, treat, counsel and follow-up chart of case management process, management the hypothermia in imnci approach.

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