

STANDARD 8: Giving appropriate resuscitation, emergency and continuing care for very ill children

‘Healthcare providers, organisations and individual health care workers, share a responsibility to advocate for children and to reduce the fear, anxiety and suffering of children and their families by giving appropriate emergency care to children’.

***Emergency signs** in children that need **immediate** assessment and treatment include:

- An obstructed airway (obstruction to breathing/choking)
- Severe respiratory distress (severe problem with breathing)
- Central cyanosis (blue mucous membranes)
- Shock (weak fast pulse + capillary refill longer than 3 seconds)
- Coma (unconscious and unresponsive)
- A convulsion (fit)
- Signs suggesting severe dehydration in a child with diarrhoea (any two of the following: lethargy, sunken eyes, very slow return of skin after skin pinching)

***Priority signs** in children that need assessing and treating urgently (ideally within thirty minutes of arrival) include:

- Visible severe wasting
- Oedema of both feet
- Severe pallor of the palms of the hands
- Lethargy, drowsiness or reduced level of consciousness/responsiveness
- Continual irritability and restlessness
- Major burns
- Any signs of respiratory distress (any breathing problem)

A sick young infant < 2 months old and a child with an urgent referral note from any other health facility/health worker should also be considered a priority.

*Reference:

The Management of the child with a serious infection or severe malnutrition – guidelines for care at the first referral level in developing countries, Department of Child and Adolescent Health and Development, World Health Organisation.

Supporting criteria

1. Provision of appropriate resuscitation/emergency and continuing care for very ill children, coordinated by lead health workers and, in a hospital, given by safe numbers of skilled health workers throughout the 24 hour period:
2. In any healthcare environment a system for **triage** (seeing the sickest children first) with:
 - A policy for placing children into categories of severity
 - Essential equipment such as thermometers, soap and towels, weighing machine, stethoscopes etc
 - Job aides that include the WHO emergency and priority signs*, oral re-hydration volumes and methods of reducing a fever and managing convulsions, shock, respiratory failure, coma etc.
 - A system for getting help:

And in a health facility **also**:

- A separate ‘child and family friendly’ area for triage
- A suitable ‘child and family friendly’ area for waiting families that has a free and adequate supply of safe oral fluids
- A private area for children who have died and their families

3. In any healthcare environment a system for providing appropriate **resuscitation and emergency care** with:

- A resuscitation policy
- Job aides for life support:
- ‘Standardised’ (used by everyone) clinical guidelines for managing the common emergencies

- Oxygen available at all times and in sufficient amounts with the equipment to administer it safely
- Essential* appropriate resuscitation equipment (clean, regularly checked and accessible)
- A secure supply of essential emergency drugs and standardised guidelines for their use:
- A system for getting help

And in a health facility also:

- A separate ‘child and family friendly’ area for resuscitating a child and giving emergency care preferably near the triage and/or assessment area
- A suitable ‘child and family friendly’ area for waiting families
- A private ‘child and family friendly’ area for children who die, and their families

*Essential means that all the equipment and drugs that are on the country’s essential equipment and drug lists for providing acute care, if such lists exist, are available. For examples of essential equipment and drugs refer to ‘International Child Health’, ‘Pocket Emergency Paediatric Care’ and/or WHO’s ‘Management of the child with a serious infection or severe malnutrition and/or the Emergency Maternal and Child Healthcare (EMCH) programme.

4. In a hospital, a system for providing appropriate **continuing care** to very ill children in a ‘child and family friendly’ area, ideally separate from adult patients, that has:

- A monitoring policy that includes essential monitoring of vital parameters (for examples depending on resources heart rate, respiratory rate, oxygen saturation, blood glucose levels and temperature) and monitoring parameters
- Appropriate monitoring equipment
- Monitoring charts for recording vital parameters
- Oxygen available at all times and in sufficient amounts with the equipment to administer it safely
- Appropriate resuscitation equipment (clean, regularly checked and accessible)
- A secure supply of essential drugs and standardised guidelines for their use
- ‘Child and family friendly’ waiting area/s for families
- A separate ‘child and family friendly’ area for children who die and their families with culturally appropriate privacy

5. Systems for **transferring** very ill children with:

- Written policies for transfer to a hospital from the community or from a health facility, internal transfer within a hospital and for transfer from one hospital to another
- ‘Standardised’ clinical guidelines for managing the common emergencies
- Transfer of clinical information
- Skilled health workers for accompanying a child during transfer
- Access to safe and reliable transport for transfer
- Monitoring and other equipment for use during transfer
- Portable oxygen supply for transfer
- Portable suction equipment

6. Access to a service/s or system/s for providing psychosocial support to children, their families and health workers when suffering life threatening illness or injury

Discussion

The early onset of appropriate resuscitation and emergency healthcare in neonates, both before and after birth, and for very ill or injured children is essential as delays not only cause harm that may result in unnecessary death or handicap, but may also make early treatment less effective and more prolonged. Immediate triage to detect emergency and priority signs on arrival at a health facility (in a hospital available for the whole twenty-four hours), is essential. Children with emergency signs need to be treated immediately and those with priority signs urgently and before registration, to minimise unnecessary deaths and disabilities. (SEE WHO ETAT programme and the CAI/ALSG EMCH project).



As a child's condition can change rapidly, close monitoring by skilled health care workers is essential to detect the early warning signs of deterioration in very ill or injured children, also those undergoing surgery and those who have been given systemic analgesia and/or sedation

A children's area for giving emergency care in an adult accident Department

Summary

The most important issues for the care of an acutely ill child are in sequence:

1. Early recognition of severe illness by the family and community health care workers.
2. Immediate treatment where the child is living, by the community health care workers.
3. Early and efficient transport to the nearest primary or secondary referral health care facility for treatment, ideally with appropriate health care given during transport by health care workers.
4. Effective triage, that is available 24 hours a day, given on arrival.
5. Regular and effective monitoring of children at risk of deteriorating, with appropriate preventative interventions – effective care of very ill children.
6. Immediate implementing of any necessary emergency health care in the primary or secondary referral health care environment, by health care workers who are trained to do this and also have the necessary material resources readily available.



Triage in a Ugandan hospital



Monitoring in a high dependency/intensive care unit in Pakistan

The above system needs to be integrated and is dependant on a well-managed collaborative network of health care services, effective health education for parents, effective training for all health workers, efficient transport services and the necessary human and material resources. (See EMCH programme)

To ensure that health workers give the best possible emergency care and critical care, best practice is to develop and use guidelines and other job aides that act as reminders for life support and the common illnesses that can cause severe illnesses in children. Guidelines and job aides need to be accessible and evidence-based and used by everyone. Community, outpatient, and inpatient staff should all be trained together in emergency care.



Job aides for providing life support: see website for what is written on the charts



Training in emergency care in Kosova



Emergency equipment laid out for immediate access in the emergency department of a hospital in a poor country

Working together is vitally important to ensure the provision of the best possible care for the very sick pregnant woman and child in order to reduce mortality and morbidity.

The systems used should draw on the programs of Safe Motherhood, the Integrated Management of

Childhood Illness, essential antenatal, perinatal and postpartum care, essential care of the newborn, basic life support (neonates and children), neonatal and paediatric life support and advanced paediatric life support and the new Emergency Maternal and Child Healthcare (EMCH) program.

To provide the best possible and appropriate care, best practice is also to have regular meetings to review the systems used to ensure they are achieving their objectives. All those involved in providing triage, resuscitation, emergency and critical care need to attend these audit meetings. Specific issues for audit must include the circumstances leading to childhood deaths.

Finally as there are many ethical issues to be considered when deciding what is appropriate care to provide, access to specialist ethics advice is helpful.



Kangaroo care. This is a good way of nursing babies in poor countries where incubators are too expensive

References

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