Paediatric Emergency Triage, Assessment and Treatment (ETAT)

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Dengue Epidemic in Cambodia 2012

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Referral to In-patient Care

- 10-20% of children seen in outpatient settings need referral to hospitals for inpatient care
- Mainly for severe infections, severe malnutrition and neonatal problems
- WHO guidelines for hospital care in children ensure high-quality care
- BUT: how to manage large numbers of patients?
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – BACKGROUND

- Deaths in hospital often occur within 24 hours of admission as children die of a treatable condition after waiting for too long in the queue for their turn.
- Many of these deaths could be prevented if very sick children were identified soon after their arrival in the health facility, and treatment was started immediately.
- ETAT guidelines developed by WHO and adapted from Advanced Paediatric Life Support guidelines to identify and treat children with immediately life-threatening conditions in developing countries.
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – WHY?

Most neonatal and child deaths in hospital occur during the first 24 (-48) hours after birth/admission!

Table 3
Day of early neonatal deaths, 1998–2000

<table>
<thead>
<tr>
<th>Day</th>
<th>1998a</th>
<th>1999a</th>
<th>2000a,b</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>72.5 (62.0–83.0)</td>
<td>66.0 (52.9–79.1)</td>
<td>61.9 (47.2–76.6)</td>
<td>0.630</td>
</tr>
<tr>
<td>2</td>
<td>10.1 (3.0–17.2)</td>
<td>10.0 (1.7–18.3)</td>
<td>21.4 (9.0–33.8)</td>
<td>0.052</td>
</tr>
<tr>
<td>3</td>
<td>1.4 (0.0–4.2)</td>
<td>10.0 (1.7–18.3)</td>
<td>4.8 (0.0–11.6)</td>
<td>0.022</td>
</tr>
<tr>
<td>4</td>
<td>2.9 (0.0–7.0)</td>
<td>2.0 (0.0–4.0)</td>
<td>4.8 (0.0–11.6)</td>
<td>0.497</td>
</tr>
<tr>
<td>5</td>
<td>2.9 (0.0–7.0)</td>
<td>6.0 (0.3–11.7)</td>
<td>7.1 (0.0–14.9)</td>
<td>0.444</td>
</tr>
<tr>
<td>6</td>
<td>8.7 (2.0–15.4)</td>
<td>4.0 (0.0–11.7)</td>
<td>0</td>
<td>0.166</td>
</tr>
<tr>
<td>7</td>
<td>1.4 (0.0–4.2)</td>
<td>2.0 (0.0–4.0)</td>
<td>0</td>
<td>0.564</td>
</tr>
</tbody>
</table>

a P< 0.001 (χ² test): for each year, deaths occurred significantly more frequently on Day 1.
b January to August 2000.

Krüger C et al., Int Health 2012
For Women, Fetuses and Newborns, Birth is the Time of Highest Risk of Death & Disability

1.2 million intrapartum stillbirths
>1 million neonatal deaths
~113,000 maternal deaths

75% neonatal deaths

Lawn et al., Lancet Every Newborn series 2014
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – WHY?

Most neonatal and child deaths in hospital occur during the first 24 (-48) hours after birth/admission!

Abb. 3: Zeitpunkt des Todes nach Aufnahme pro Jahr (*: 8 Monate)

Krüger C et al., 2012
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – PROCESS

- Triage is the process of rapidly screening sick children in order to identify
  - Those with emergency signs, who require immediate emergency treatment;
  - Those with priority signs, who should be given priority while waiting in the queue so that they can be assessed and treated without delay;
  - Non-urgent cases, who have neither emergency nor priority signs

- Timing of and Person for Triage
  - As soon as the child arrives (well before any administrative procedure)
  - Done by all clinical staff involved in the care of sick children

- Considerations for Assessment
  - Assessment should not take more than 1 min per patient
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – RESULTS

Monthly admissions and case-fatality rates for children aged < 5 years, Queen Elizabeth Hospital, Blantyre, Malawi, 2000–2003

Inpatient mortality dropped from 10-18% before to 6-8% after the introduction of ETAT

Paediatric Emergency Triage, Assessment and Treatment (ETAT) – WHAT?

Triage into 3 Categories

**EMERGENCY, PRIORITY, QUEUE/WAIT**

*Emergency*
- Obstructed/absent breathing
- Severe respiratory stress
- Central cyanosis
- Shock
- Coma
- Seizures
- Severe dehydration in diarrhoea
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – WHAT?

Triage into 3 Categories

**EMERGENCY, PRIORITY, QUEUE/WAIT**

Priority (3T, 3P, 3R, MOB)

- Any sick child aged under two months (tiny baby)
- High fever/temperature
- Trauma/other urgent surgical condition
- Pallor (severe)
- Pain (severe)
- Poisoning

- Respiratory distress
- Restless/continuously irritable/lethargic
- Referral (urgent)
- Malnutrition: visible severe wasting, oedema of both feet, burns
- Burns
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – WHAT?

Triage into 3 Categories

**EMERGENCY, PRIORITY, QUEUE/WAIT**

*Queue/Wait:* all others
Paediatric Emergency Triage, Assessment and Treatment (ETAT) – TRAINING

http://www.rcpch.ac.uk/global/programmes/training-global-workforce/etat-e-learning