Standardisation of multidisciplinary obstetric emergency training nationally.
Teamwork and Obstetric Emergencies

Dr Niamh Hayes
ATM Return:

- Aim: Get cash!

Simple task...

- Cash return first?
- Card return first?
ATM Return: Cash return first:

• Aim: Get cash!
ATM Return: Cash return first:

- Aim: Get cash!
ATM Return: Card return first:

- Aim: Get cash!

> 10,000 transactions p.a. leave cash behind

> €1,000,000 p.a.

... single bank R.O.I.
ATM Return: Card return first:

- Aim: Get cash!

Simple cognitive error...

- Person capable of performing task safely
- Has done so many times in the past
- Faces significant personal consequences for error
Complexity of medical crisis?
Context: Scope of the problem

44,000 - 98,000 deaths p.a.

IOM “To Err is Human” 1999
Context: Scope of the problem

600 - 1300 deaths p.a.

IOM “To Err is Human” RoI?
Context: Scope of the problem

442 deaths 1999

Commercial aviation fatalities worldwide 1999
Causes?

- Technical competencies:
  - Procedural knowledge
  - Psychomotor skills

- Non-technical competencies:
  - Cognitive skills
  - Social skills

Safe task completion
Causes?

• Non-technical failures

cockpit  resource management
Causes?

- Non-technical failures

crew resource management
Causes?

• Non-technical failures

  crisis  resource management
Definition

• Crisis resource management:

“The ability to translate medical knowledge to real world actions in the setting of an emergency”

Howard SK et al. Anesthesia crisis resource management training: teaching anaesthesiologists to handle critical incidents. Aviation, space and environmental medicine 1992
Principles of CRM

- Effective Communication
- Mutual Respect
- Shared Decision Making
- Situational Awareness
- Leadership and Followership
- Use All Available Resources

Adapted from: Rall and Gaba, Miller’s Anesthesia 7th Edition
*Teamwork elements from ACLS provider manual 2010, PROMPT provider manual
Principles of CRM

EFFECTIVE COMMUNICATION

CLOSED-LOOP COMMUNICATION

Strategy of verification to make sure that the message sent was received and interpreted as intended
Principles of CRM

From HSE.ie and App Store (accessed 15th September 2014)
Principles of CRM

National guideline for communication (handover) in maternity services in Ireland

295 pages!!!
Principles of CRM

- Clear role/task allocation
- Know limitations and ask for help early
- Mutual support/cross checking

- Objective evidence (point of care testing)
- Human resources
- Cognitive aids (algorithms)
Principles of CRM

What?
So what?
What now?

Information gathering?
Understanding?
Anticipation?
Principles of CRM

MUTUAL RESPECT

• “Power distance” (hierarchy)
• Treat input from other team members legitimately

SHARED DECISION MAKING

• “hint and hope”...
• SBAR?
• Critical language: CUS
Principles of CRM

- Effective Communication
- Mutual Respect
- Shared Decision Making
- Situational Awareness
- Leadership and Followership
- Use All Available Resources

Adapted from: Rall and Gaba, Miller’s Anesthesia 7th Edition
*Teamwork elements from ACLS provider manual 2010, PROMPT provider manual
Metrics

• Domain/context-specific training interventions

• Good face validity...

• Evidence for construct validity (translational science)?
## Metrics: Evidence for success?

**Southmead Hospital, Bristol (UK)**

- **Infrastructural changes** *(protocols, props...)*
- **Regular in-house drills for all staff**
  
- 51% reduction in Apgar\textsuperscript{5} <7
- 50% reduction in HIE
- 75% reduction in Erb’s palsy after shoulder dystocia
- 40% reduction in median DDI for cord prolapse

---


Draycott T et al. Improving neonatal outcome through practical shoulder dystocia training. Obstet Gynecol 2008;112:14-20

# Metrics: Evidence for success?

**BDIMC, Boston (US)**

- Teamwork course for all staff
- **Debriefings, improved handover**
- Protocol development
- **Selected clinical drills**

| 23% reduction in adverse obs events | 62% reduction in malpractice claims |
| Labour staff > positive attitude to safety |

Metrics: Evidence for success?

**Liverpool Women’s Hospital (UK)**

- **Integrated risk management**
- **Patient involvement**
- **Regular team briefings and drills**
- **Infrastructural improvements**

- 11% reduction in AE with suboptimal care
- 50% reduction in Apgar<sup>5</sup> < 4
- 50% reduction in cord pH < 7
- 86% reduction in Erb’s palsy


# Metrics: Evidence for success?

<table>
<thead>
<tr>
<th>Rigshospitalet, Copenhagen (DK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Clinical drills</strong></td>
</tr>
<tr>
<td>• <strong>Streamlined protocols</strong></td>
</tr>
<tr>
<td>• <strong>Eclampsia and haemorrhage boxes</strong></td>
</tr>
<tr>
<td>• <strong>Improved staff confidence scores &amp; 45% reduction in midwifery staff sick leave</strong></td>
</tr>
</tbody>
</table>

Metrics: Evidence for success?

Evidence = association (not causation)

- Institution-level incentives to training and safety culture
- Non-threatening training and assessment for entire workforce
- Relevant, in-house training
- Self-directed infrastructural changes (local solutions)
- Realistic training tools (high fidelity)
- Multiprofessional clinical and teamwork training
Resources?

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Personnell</th>
<th>Other</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>O &amp; G Ireland</td>
<td>Obstetric</td>
<td>Manikins</td>
<td>Face validity satisfaction scores</td>
</tr>
<tr>
<td>COMPASS training manual (HSE)</td>
<td>Midwifery</td>
<td>Birthing Simulator</td>
<td>Others?</td>
</tr>
<tr>
<td>NEWS guideline (appendix 6, HSE)</td>
<td>Anaesthesia</td>
<td>Resus Manikin</td>
<td>Unit dependent?</td>
</tr>
<tr>
<td>ISBAR app (iTunes &amp; android)</td>
<td>+++</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Practical skills & drills elements

**TTT elements**
Elements for certain scenarios

- EFFECTIVE COMMUNICATION
- LEADERSHIP AND FOLLOWERSHIP
- USE ALL AVAILABLE RESOURCES
- MUTUAL RESPECT
- SHARED DECISION MAKING
- SITUATIONAL AWARENESS
Looking forward

• If you do only one thing when you return to your unit,

use ISBAR