Full-scale simulation training of MET and staff from general ward

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Gentofte Hospital
A University Hospital
500 beds
20,000 Admissions/year
General ICU 9 beds

Operation Life

• The Danish Society for Patient Safety
• National safety campaign over 2 years
• April 2007 – April 2009
• Target group: all Danish hospitals
• Aim: To prevent 3000 hospital related deaths by implementing 6 interventions
• MET as one of the 6 main interventions of the campaign....

MET implementation 1

• Early 2007: Preparation and a MET Pilot Study
• September 2007 – December 2008
• Aim: Multi-professional full-scale simulator based training of all members of MET team
  • 5 different specialities (surgery and medical)
  • Aprox. 800 staff members
  • 50% of staff completed training
  • 100% of ICU specialists + nurses
• From January 2009 all new staff receive training

MET implementation 2

MET Team:
Ward: doctor + nurse
ICU specialist + nurse
Team receives a day of theory and simulator based training.
Size of team:
6-8 participants
2 educators
1 operator

MET – the Course

• Theory
  • Interactive mini-lectures
  • The Deteriorating patient – ABCDE
  • Case discussions
• Multi-professional full-scale based training with debriefing
  • 2 cases
• Communication
  • Closed loop
  • ISBAR (structured way of communication)
Learning objectives

- Observe clinical signs
- Recognize deterioration
- Manage deterioration
- Communication
- Teamwork

Calling Criteria

<table>
<thead>
<tr>
<th>Acute changes in</th>
<th>Physiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiration</td>
<td>Respiratory rate &lt;8 or &gt;30 per min</td>
</tr>
<tr>
<td>Saturation</td>
<td>Pulse oximetry saturation &lt;90% despite oxygen administration</td>
</tr>
<tr>
<td>Circulation</td>
<td>Systolic blood pressure &lt;90 mmHg</td>
</tr>
<tr>
<td>Renal function</td>
<td>Urinary output &lt;50 ml during the last 4 hours</td>
</tr>
<tr>
<td>Neurologic status</td>
<td>Acute change in conscious state</td>
</tr>
<tr>
<td>Other</td>
<td>Staff member is worried about the patient, despite all other values are normal</td>
</tr>
</tbody>
</table>

Where are we now?

- Just finished implementation
- To early to measure an effect
- 280 MET calls in 2008
- Which calling criteria used?
- How many transfers to ICU?
- Which interventions?

Results of MET calls

- Other hospital: 1%
- To OR: 1%
- Other: 3%
- ICU: 2%
- No ICU: 7%

Remaining at ward: 66%

MET interventions

- Transfer to ward
- Transfer to ICU
- Transfer to outpatient
- Transfer to other hospital
- Transfer to observation
- Transfer to emergency department
- Transfer to critical care unit
- Transfer to other department
- Transfer to other unit
- Transfer to other section
- Transfer to other hospital
- Transfer to observation
- Transfer to emergency department
- Transfer to critical care unit
- Transfer to other department
- Transfer to other unit
- Transfer to other section
- Transfer to other hospital
Summary

- Staff training:
  - 50% of ward staff
  - 100% of ICU staff
- Multi-professional full-scale based simulation training with debriefing
- Majority of calls was “staff worried” and “respiratory”
- 66% of patients “remain at ward”
- 20% transfer to ICU
- >50% of calls where basic interventions

How can we improve this?

- Continue training of staff
- Improve Competence
- Back to basics
- Monitoring of vital signs
- Need of acute scoring systems in wards (MEWS)

Thank You 😊