Emergency airway checklist

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WMH

Patient factors

- Obese
- Short neck
- Receding jaw
- Awkward teeth
- Limited neck mobility
- Affect ...

Environmental factors

- Limited equipment/monitoring
- Remote location
- Staff expertise
- “Comfort zone”
- Noisy environment ...

Human factors

- Pressure from teammates to proceed
- Unfamiliarity with staff / environment
- Losing “face”
- Distraction
- Tiredness
- Stress ...
  - Cognitive overload
Lessons learnt the hard way …

Emergency inductions in ED & ICU

- Sicker patients
- Difficult airways
- Suboptimal conditions
- Less time
- Pressure to intervene
- Human factors
- Unfamiliar surroundings
- Junior staff
- Out of hours …

And those that are forgotten …

NAP4 findings

1 in 4 deaths in ICU & ED – AVOIDABLE

- At risk patients
- Competence
- Delayed recognition
- Poor prep
- Capnography

NAP 4 findings

Most ED airway disasters were related to RSI’s

- Level of monitoring
- Rescue equipment
- Staffing levels
- Competence

NAP 4 findings

70% of deaths on ICU related to lack of capnography
Recommendations

- Emergency induction checklist
- Capnography used for every single case
- Team discussion of difficult airway plan

“Plan to fail”

Does it work?

Method

- Simulation – patient needing intubating
  - Patient septic with pneumonia
  - Hypovolemic and hypotensive
  - Reduced level of consciousness
- Candidates asked to prepare for RSI
- 1st time as normal
- 2nd time using checklist
- Primary outcome = difference in score
- Secondary outcome = time taken to prepare

Scoring

- Optimise position
- Connect oxygen and preoxygenate
- Request new bag of fluids
- Request vasopressor
- Capnography
- Suction
- Guedel airway
- LMA
- Bougie
- Propofol infusion (or alternative)
- Discussion of plan in case of failed intubation

Results

<table>
<thead>
<tr>
<th></th>
<th>Median Score (IQR)</th>
<th>Mean Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without checklist</td>
<td>8 / 11 (6-7.20)</td>
<td>296.3</td>
</tr>
<tr>
<td>With checklist</td>
<td>10 / 11 (8-11)</td>
<td>378.2</td>
</tr>
<tr>
<td>Pvalue</td>
<td>0.001*</td>
<td>0.087**</td>
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</tbody>
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“...I do this all the time anyway...”

NO

- Chances are you will miss out 2-3 things
  
  • EVERYONE should use it EVERYTIME irrespective of perceived competence
“Will this make a difference ...”

YES

“It’s just more paperwork ...”

NO
- Team communication tool
- Tick box
- Read out during preoxygenation

“We don’t have time to do it ...”

NO
- Reduces prep time when done well
- Reduces stress
- Reduces omission errors
- Promotes better team working

It is time well spent

“When should we use it?”

• Emergency department
• ICU
• HDU
• Wards

NOT in a cardiac arrest scenario

Discussion
- ICU care is expensive and has little evidence base... Checklist is free
- Good ICU outcomes are rarely based on a single intervention but on 100’s of small ones...
“Better is possible. It does not take genius, it takes diligence.”

Atul Gawande

Questions ???

Thank you