Crisis Checklists: Consistency, Communication & Quality of Care Responding to Acute Illness

Davis EM, Cleaver HF, Subbe CP, Hughes L, Foreman T & Mohd Razib H.

Aim

To determine the applicability of crisis checklists to general ward scenarios & whether, in their iOS app version, they prove useful streamlining the response to simulated crises.

Background

Recent focus on improving safety in healthcare has prompted the development of set responses to acute illness using checklists modelled on those used in aviation. The hope is to standardise care & ensure fewer patients “fall through the net”.

Method

1. Relevance of checklists to ward patients
   - Three wards, 4 weeks, Ysbyty Gwynedd
   - Retrospective examination of patients’ notes in those scoring NEWS 6+
   - Allocation of an appropriate checklist
   - Comparison of current management to checklist recommendations
   - Documentation of any overlooked critical steps in care
   - Age, sex & medical background similarly recorded for analysis

2. Simulation testing of iOS checklist app
   - Two ward teams of trainee doctors & nurses in high-fidelity simulation
   - Random allocation of the ‘Respiratory Distress’ scenario with or without the checklist app
   - Video review of primary endpoint; the timeline of critical care delivery
   - Feedback from medical students was compared to additional focus group of experienced paramedics

Results

1. Overlooked Care in Real-Life Compared to Checklist Guidelines
   - No team lead designated to coordinate care
   - Interval steps bypassed for “frequent high-scorers” with cause assumed & same intervention applied each time
   - Breathing pattern & sounds not checked by first responder
   - No “safety-netting” - care escalation or review should patient deteriorate
   - Capillary glucose rarely checked

2. Care steps delivered without app...
   - 83%

   Care steps delivered with app...
   - 100%

   30% faster
   - Average time difference care milestones delivered with checklist

   Nearly 8 mins earlier
   - Time taken to call for senior help with checklist

Conclusion

This small-scale study shows that a handful of current checklists are more relevant to the hospitalised patient & alludes to their potential to improve the efficiency of care delivery. Adopting a systematic approach using checklists in simulation appeared to facilitate more timely interventions, a standardised response & early communication between different levels of clinical experience. Development should concentrate on fine-tuning those most frequently occurring scenarios and involve more comprehensive testing with multiple checklists & larger cohorts. It should be emphasised that, despite their promise, checklists remain only tools to aid response, not substitutes for basic clinical knowledge.

Acknowledgements

Many thanks to Dr Chris Subbe for his support throughout this project, and to Leon Hughes for his invaluable help in the simulation suite.

References: