FROM 5 TO 80% - HOW TO HACK COMPLIANCE

Qualitative, feedback-driven investigation of methods to improve delirium screening compliance

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EUROPEAN DELIRIUM ASSOCIATION

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INTRODUCTION & METHODS

We ran an initiative to improve the quality of screening for delirium in the wards of a tertiary care private hospital in Switzerland. Initially, compliance with screening for delirium in wards was low: 5% of the expected delirium screening activities were actually carried out. As a result, the majority of delirium cases were missed and therefore not treated.

With this new initiative, the Delirium Observation Screening (DOS) method was applied by nurses three times a day (i.e. once per shift) and documented in the EHR.

See also "Implementation and Evaluation of a Partially Automated Non-Pharmacological Delirium Prevention Bundle in a Private Tertiary Care Hospital: A Hospital-Wide Quality Improvement Project

Methods

Automated emails

Implementation of an automated process running daily to:

- Calculate compliance of screening eligible patients for delirium
- Send out daily email showing DOS compliance per ward per day

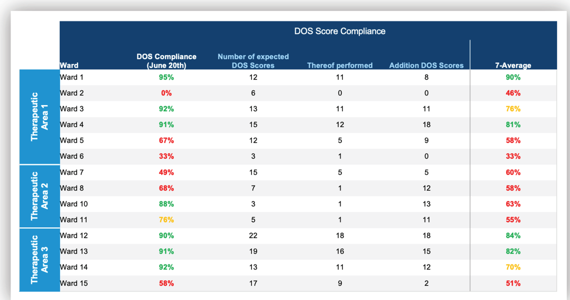


Figure 1 – Exemplar email report on delirium screening compliance

Training and Education

- Training and Education
- Distribution of training materials
- Organizing all-hands educational sessions
- Distribution of job aids in the form of pocket guides

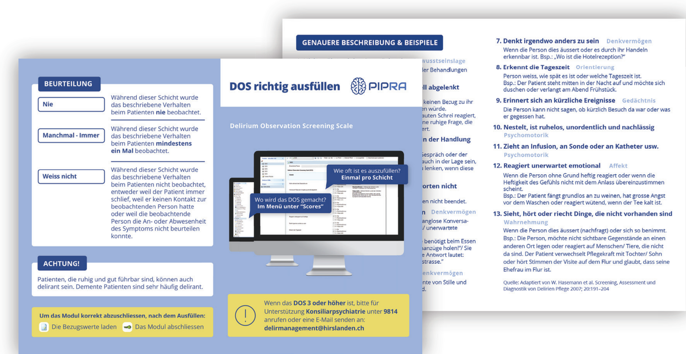


Figure 2 – Job aids in form of a pocket guide to support nurses performing the DOS

Continuous Identification of Roadblocks

Possible roadblocks included:

- ✗ Unclear communication from nursing management to nurses: 'Who to screen?', 'When can screening be stopped?'
- ✗ Complicated standard operating procedures (SOP) requiring too much change in the nurse's daily workflow
- ✗ Subjective "risk assessment" of nurses to decide on whether to screen or not to screen
- ✗ Screening performed at the beginning of the shift (when it cannot be judged) instead of at the end
- ✗ Screenings forgotten when patients were moved between wards

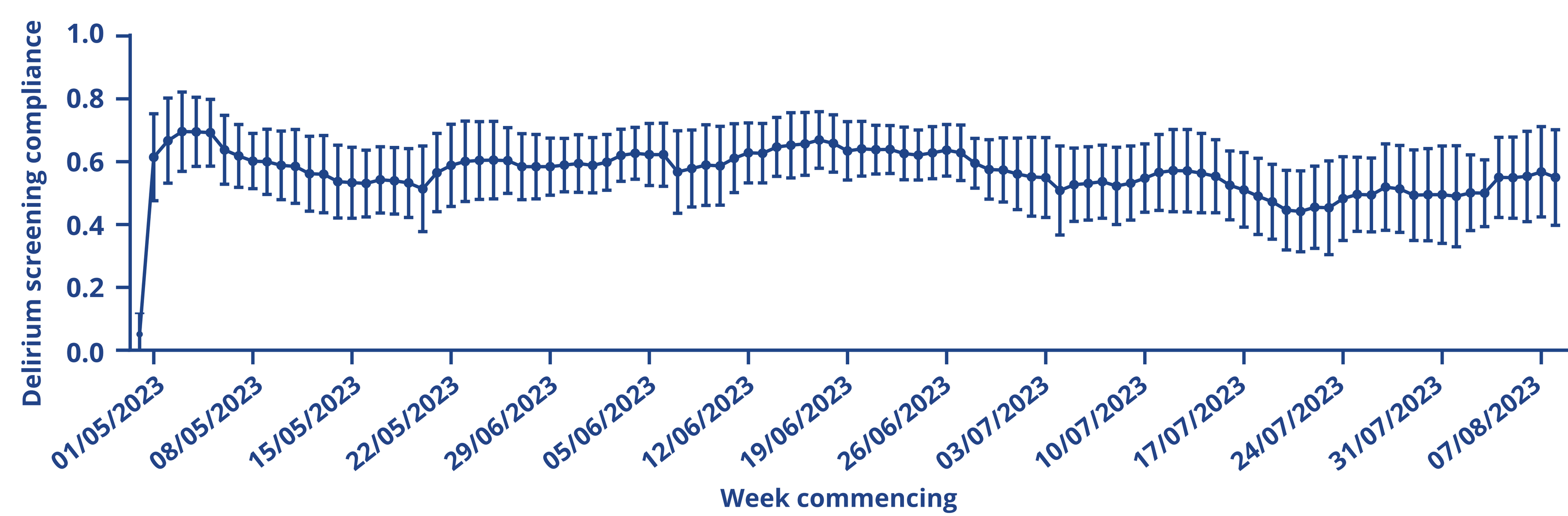
Ongoing Feedback Collection

Daily visits of wards and nurses to:

- Clarify questions and ensure they are empowered to perform the screening
- Supply them with training materials and job aids
- Collect feedback which was circled back to the nursing management, so that SOPs could be refined

RESULTS

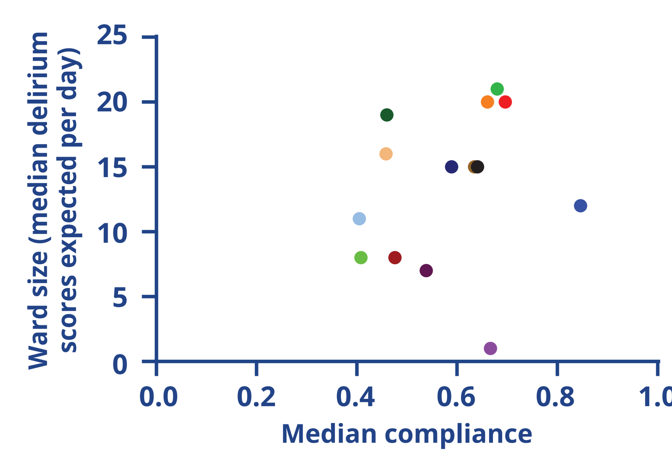
Delirium Screening Compliance during the Initiative



Overall 7-day rolling average compliance over all 14 wards with 95% confidence intervals

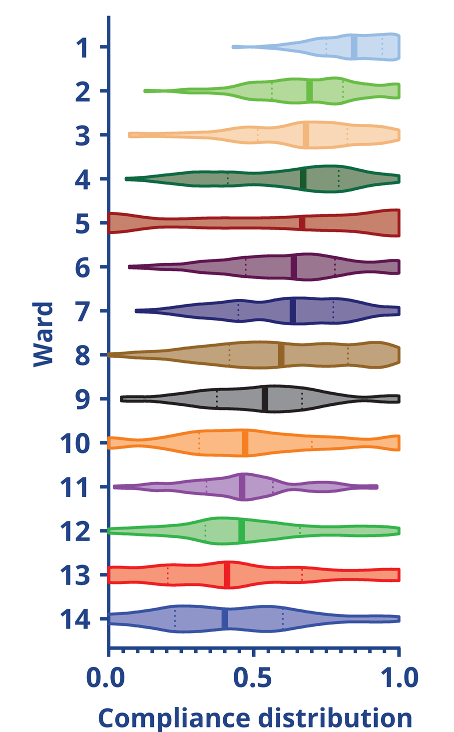
- Increase of compliance from an average of 5% to up to 61% as of day one of the initiative
- Maintaining compliance over time with minor fluctuations

Ward Size vs Compliance



Left: The compliance does not depend on ward size

Compliance of Individual Wards



Right: Violin plot showing the distribution of compliance per ward. The highest scoring ward with a median compliance of 85% compared to the lowest with 41%. Thick line is the median, thin lines are the quartiles.

Feedback from Participating Nurses

- High **intrinsic acceptance** by nurses to perform the DOS screening with **reasonable efforts** (~30 sec. / patient)
- However, nurses prefer to **screen at-risk patients only** so that unnecessary, extra workload can be avoided
- Nurses wish to have a **one-stop-shop** for accessing / ordering all training materials and job aids
- Nursing management wishes to see **(near-)real-time insights** on delirium screening and beyond, i.e. delirium management overall
- Nurses request better support from the electronic health record (EHR) system for DOS screening:
  - What the **patient's delirium risk** score is and **why**
  - If delirium **screening can be discontinued** and if so, why (e.g. patient had negative DOS values results for 3 consecutive days)
  - **Previous DOS** values results were for the patient.

Example: Feedback Implementation to Simplify Delirium Screening Rules for Nurses

Rules **at the start** of the initiative

1. Patient's age 65+ years old
2. Screening performed at minimum for the first 3 days upon admission of the patient
3. A DOS result is expected if the patient stayed at least 7h in the same ward during one shift
4. Screening can be stopped for a patient if all DOS results are <3 for three consecutive days

Rules **at the end** of the initiative

→ 1. **Screen all patients with ≥ medium risk for delirium**

CONCLUSIONS

Simple but effective process

Rules for nurses should be kept simple but still effective. For that, have a simple risk assessment tool that is:

1. automated
2. objective
3. accurate

Results in lower workload and higher delirium screening quality and compliance

Gamify

Gamify the activity by having a leaderboard of the individual ward's compliance, that is regularly updated.

Results in increased motivation of nurses to screen for delirium

Empower with knowledge

Provide engaging training session and awareness raising materials on delirium and the importance for screening.

Results in a clear understanding of the value they can bring to patients

Observe and iterate

Implementing delirium screening requires short feedback cycles to constantly observe and learn what works and what does not, therefore improve the process over time.

Results in achieving better delirium screening results in shorter amount of time

ACKNOWLEDGEMENTS

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Ethics waiver was received for this quality initiative.