

# EVALUATION OF A QUALITY MONITORING PROGRAMME FOR INTRAVENOUS FLUID MANAGEMENT

5PSQ-133

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## BACKGROUND AND IMPORTANCE

Intravenous (IV) fluid stewardship can support caregivers to optimize the patient's outcome, avoid fluid overload or electrolyte disorders, and control costs. In november 2018, a hospital-wide IV fluid guideline was implemented on all adult wards of the University Hospital of Brussels as part of a stewardship programme. Implementing such an initiative requires monitoring to guarantee guideline adherence.



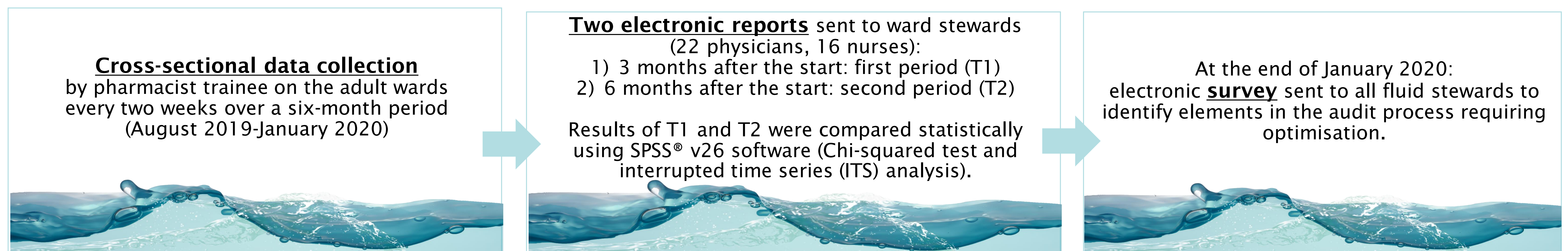
**AIM & OBJECTIVE:** to evaluate the impact of an internal audit on IV fluid use and identify opportunities to improve quality monitoring.

## MATERIALS & METHODS

- Development of **5 quality indicators** on fluid management (adapted from a framework for optimisation of intravenous fluid prescribing based on the 2013 NICE Guideline on Intravenous fluid therapy in adults in hospital<sup>1</sup>):



- Evaluation of the quality indicators in an internal audit in a 721-bed Belgian university hospital



## RESULTS

### INTERNAL AUDIT

#### Data collection

- 12 measurements (T1: 1-6; T2: 7-11) in 17 wards
  - 12 internal medicine wards
  - 5 surgical wards
- Included patients and IV fluid bags
  - 729 patients (T1: 361; T2: 368)
  - 758 IV fluid bags (T1: 381; T2: 377)

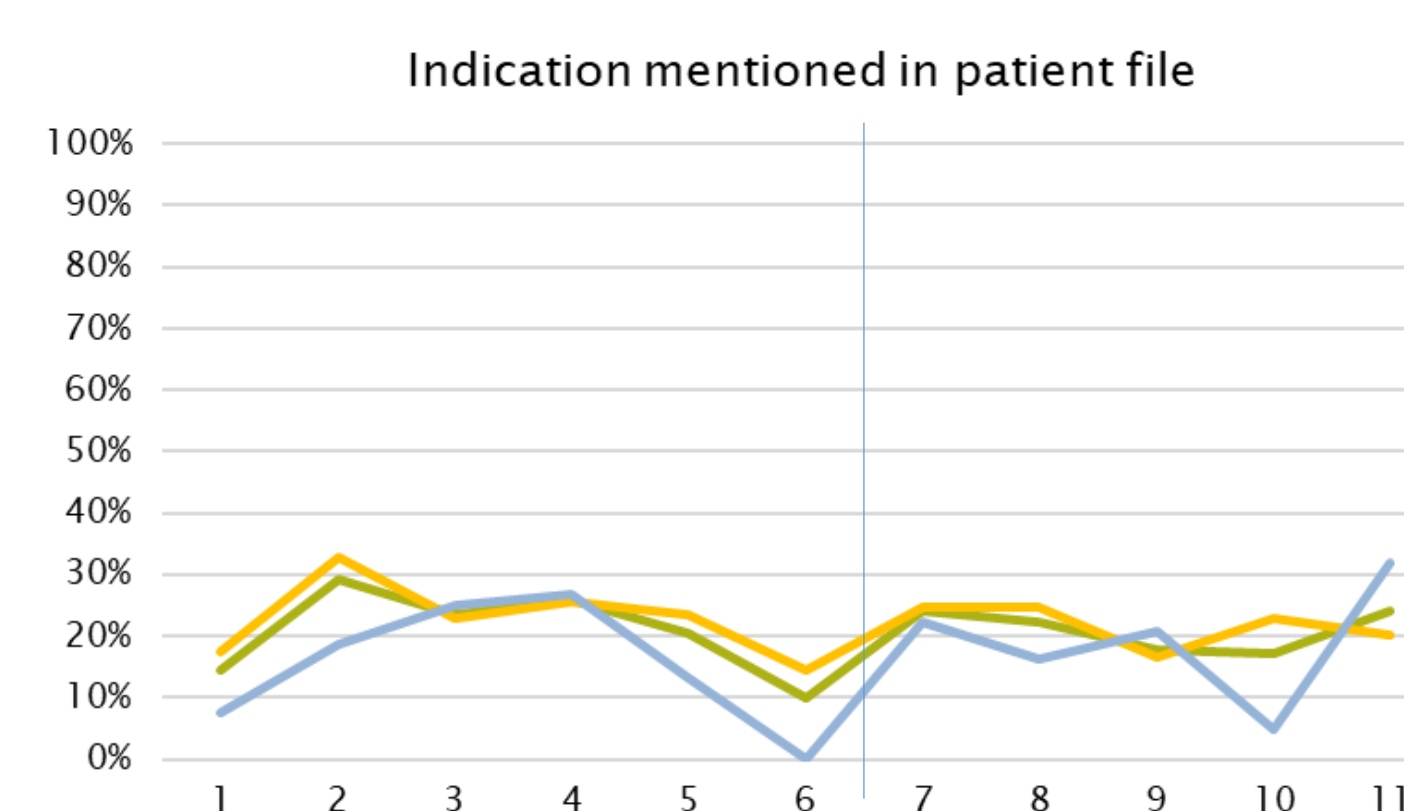
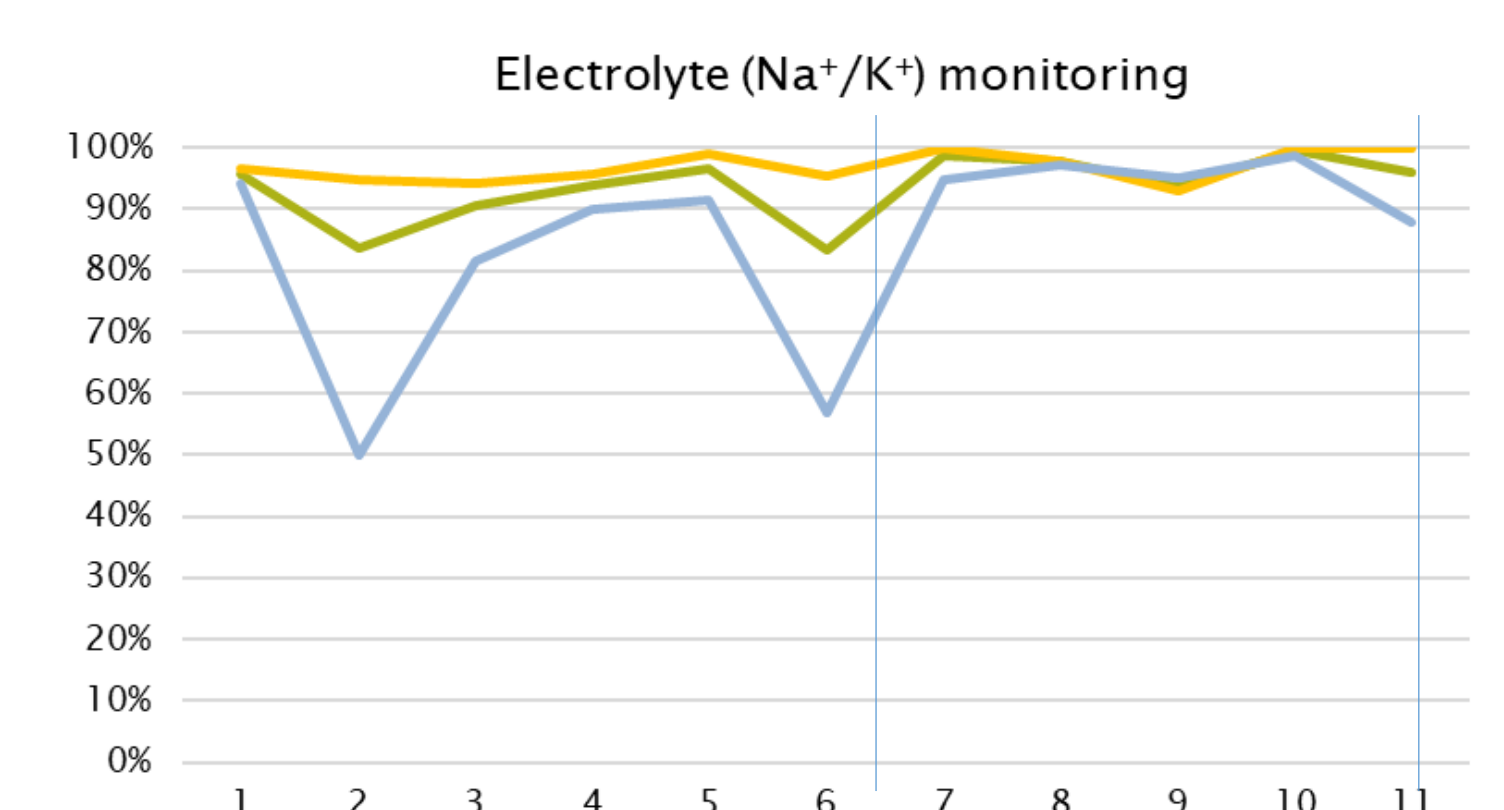
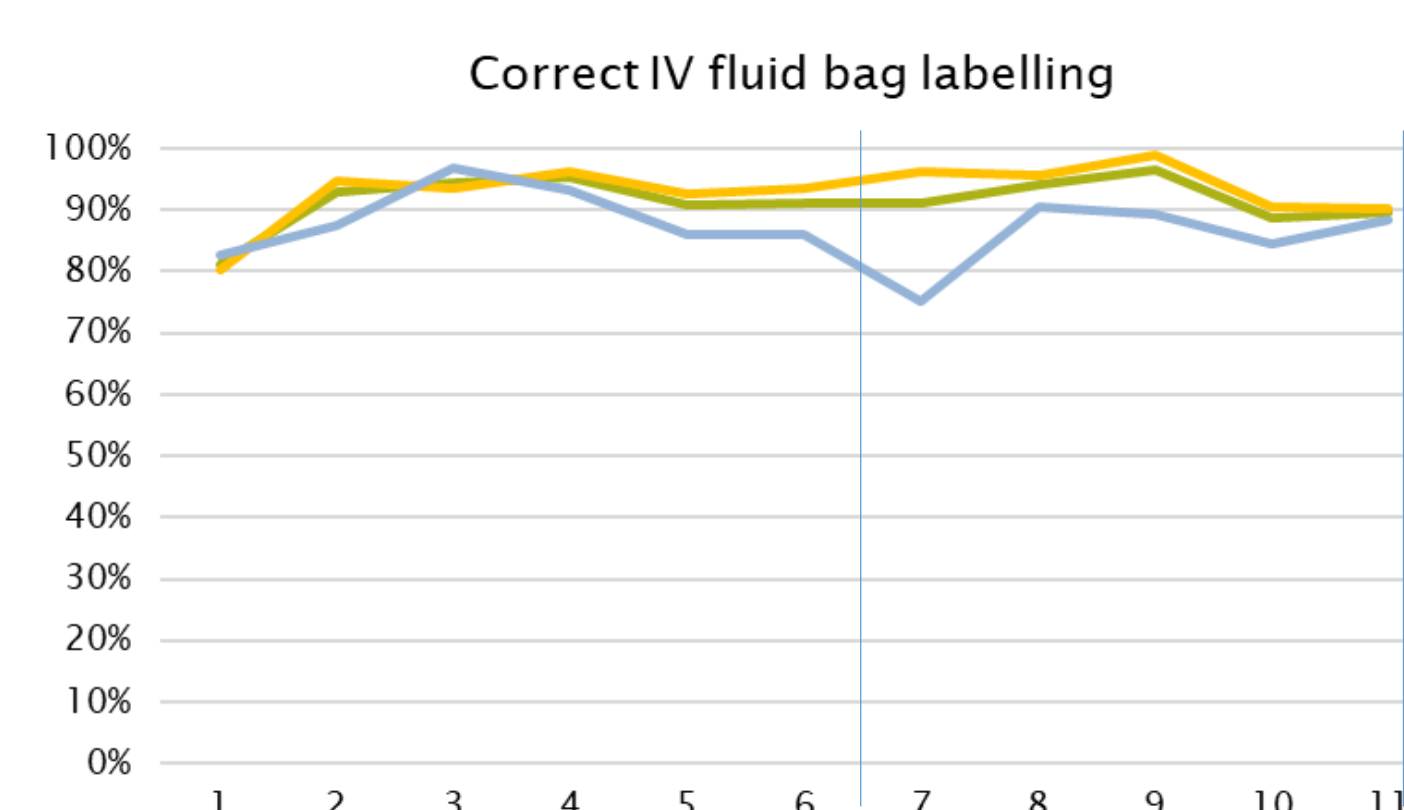
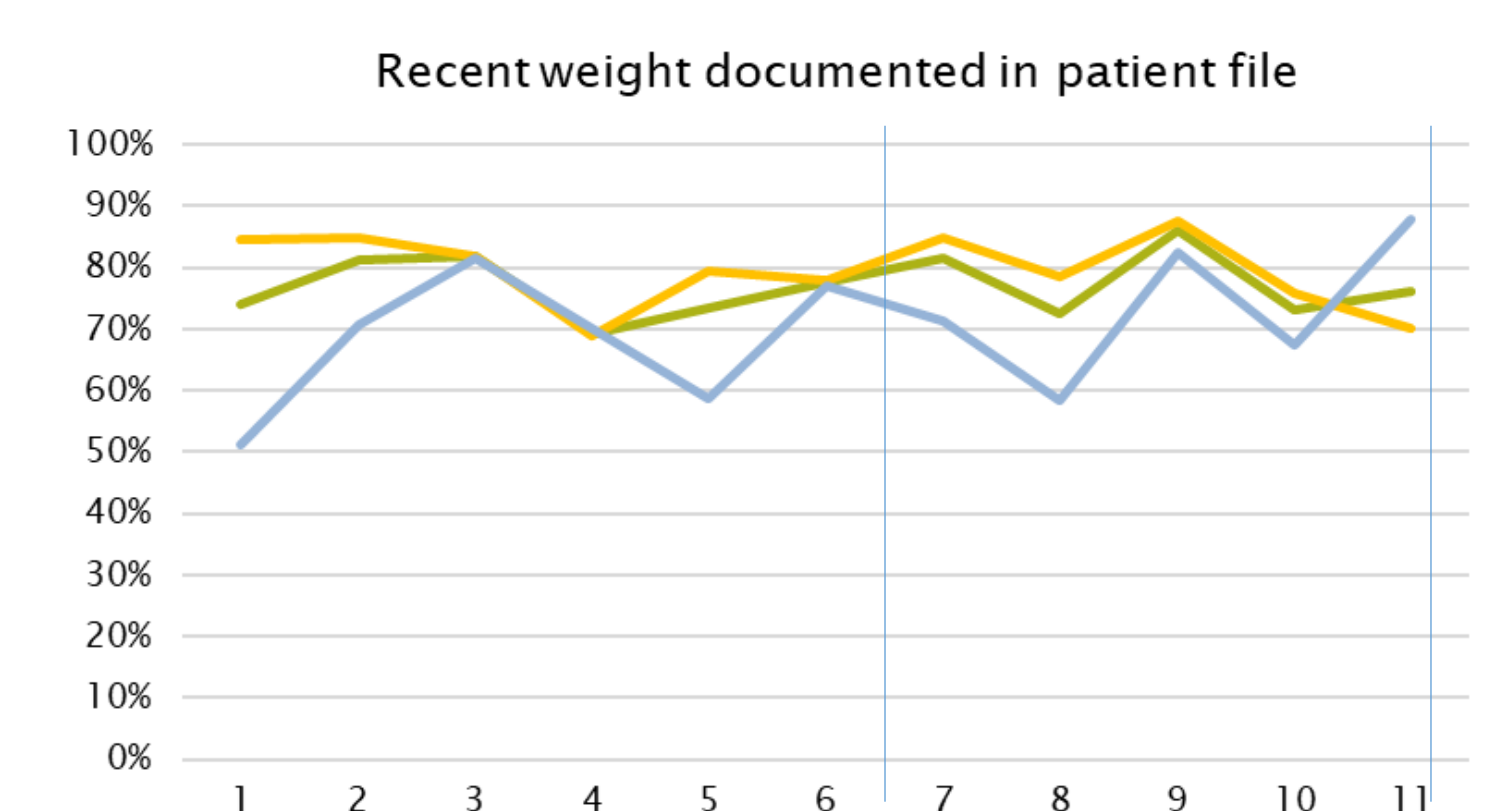
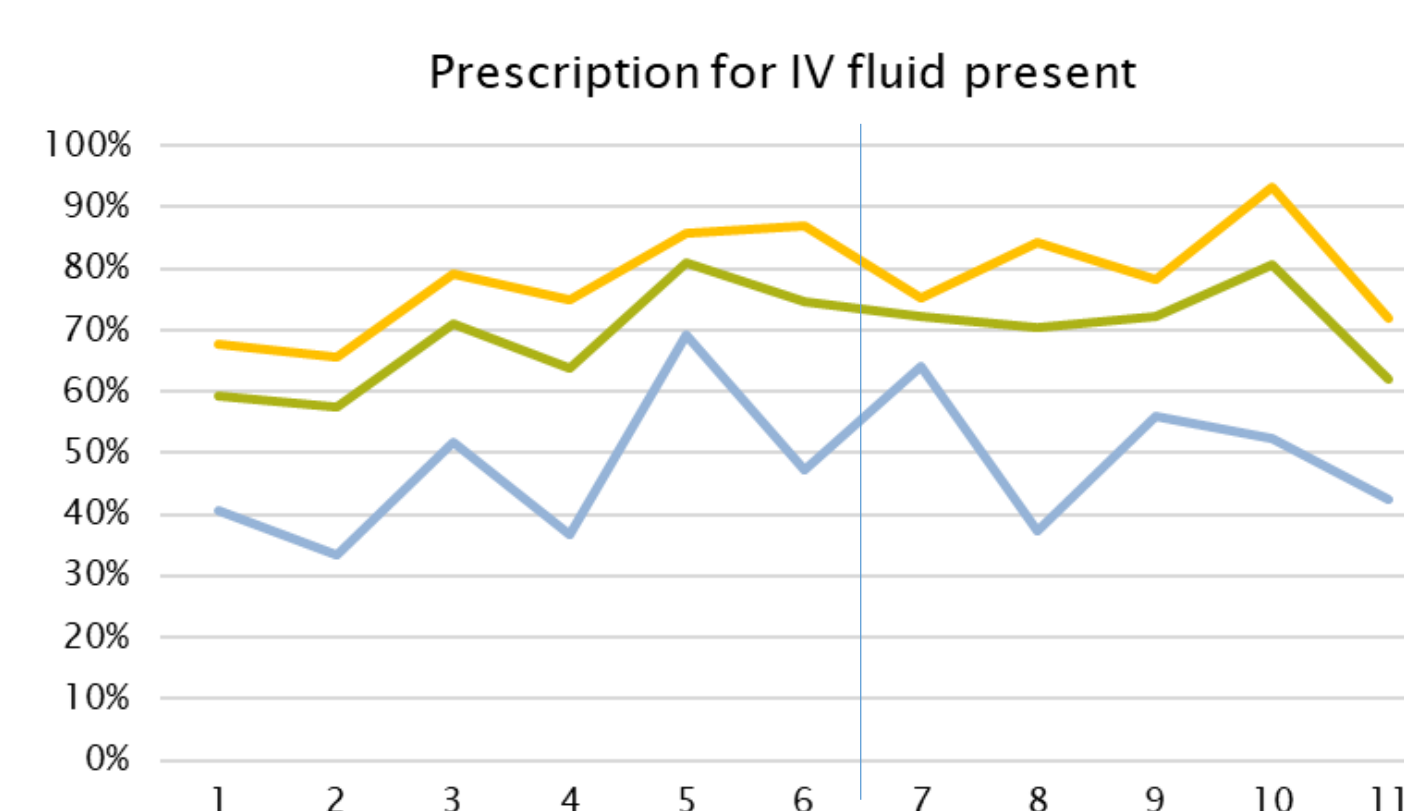
#### Quality indicator analysis

- 'Prescription' and 'Labelling': close to target value
- 'Documented indication': low (21%)
- 'Body weight monitoring':
  - Significantly better results in internal medicine wards (T1: 82.1% vs. 62.5%,  $p < 0.05$ ; T2: 80.2% vs. 66.3%,  $p < 0.05$ ).
- 'Electrolyte monitoring':
  - Significant increase between T1 and T2 (90.3% vs. 96.2%,  $p < 0.05$ ), though not attributable to our intervention in ITS analysis.
  - Internal medicine wards had significantly better results compared to surgical wards (T1: 95.3% vs. 77.8%,  $p < 0.05$ ; T2: 98.4% vs. 91.3%,  $p < 0.05$ ).

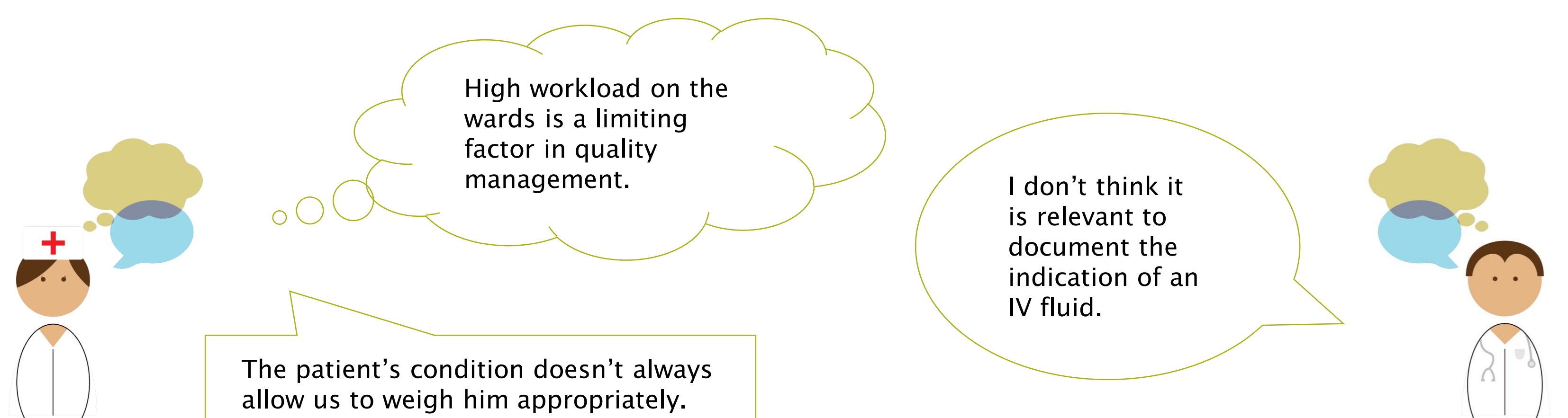
Overall, no effect of intervention in ITS analysis noted.

### SURVEY

- 32% response rate (physicians: 27.2%, nurses: 37.5%)
- Feedback report: appropriate format and length (median scores: 3/5)
- Only 33% of the stewards had communicated the results to colleagues.



Legend:  
 — Total  
 — Internal medicine  
 — Surgery  
 | Electronic report sent to stewards



## CONCLUSION & RELEVANCE

- Awareness of **electrolyte monitoring increased** among physicians but the direct impact of our feedback remains unclear.
- The **documentation of indication** requires **targeted action**. **Quality indicators with results close to target need re-evaluation.**
- Overall results suggest a **persistent need for increased awareness and training** on IV fluids, especially on surgery wards.
- Audit and feedback should include **tailored communication with staff.**