Enhancing Hip Fracture Quality of Care Through Collaborative Learning: Implementation of an Interactive Application in the Flemish Hospital Network KU Leuven

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Background

Problem:

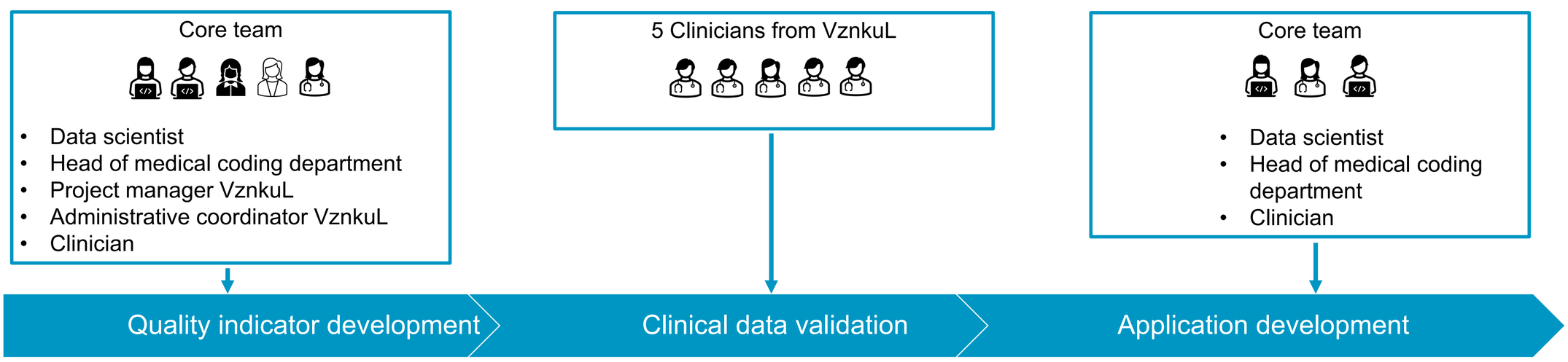
- There is no national hip fracture registry in Belgium: quality control depends on individual hospital efforts.
- The follow-up of quality indicators requires labor-intensive manual data collection and entry.

The Flemish Hospital Network KU Leuven (VznkuL):
Partnership of 32 hospitals aiming at improving quality of care through data collection, analysis, and benchmarking. Within VznkuL, the working group “Hip Fractures” focuses on improving the care for geriatric hip fracture patients.

Aims

1. To develop a set of quality indicators based on MZG Data (Minimale ZiekenhuisGegevens): Hospital Discharge Datasets (HDD) to be reported twice a year in anonymized form to the government avoiding secondary manual data input.
2. To develop an interactive multihospital benchmark to facilitate collaborative learning and to improve clinical outcomes.

Methodology



Dataset characteristics

Inclusion criteria:
- All Patients Refined Diagnosis Related Groups (APR-DRG) 38.0 (3M) and APR- DRG 323 and 308
- Unplanned admissions
- Age > 65

Comorbidities:
- Charlson Comorbidity Index
- Elixhauser set of comorbidities

Outcome quality indicators (based on literature search):
- General complications
- Local complications requiring reintervention

VznkuL Heup Benchmark

Een applicatie voor en door de WG heup

Results

- High reliability of generated lists of **included patients and comorbidities.**
- High reliability in reporting **general complications.**
- Registration bias was identified for complications not requiring surgical intervention. To increase comparability across hospitals, only **local complications requiring surgical intervention** were used for benchmarking.
- All datasets were incorporated in an **interactive application (“VznkuL Hip app”)** allowing the hospitals to conduct detailed analyses of their outcomes and to design strategies for improvement.

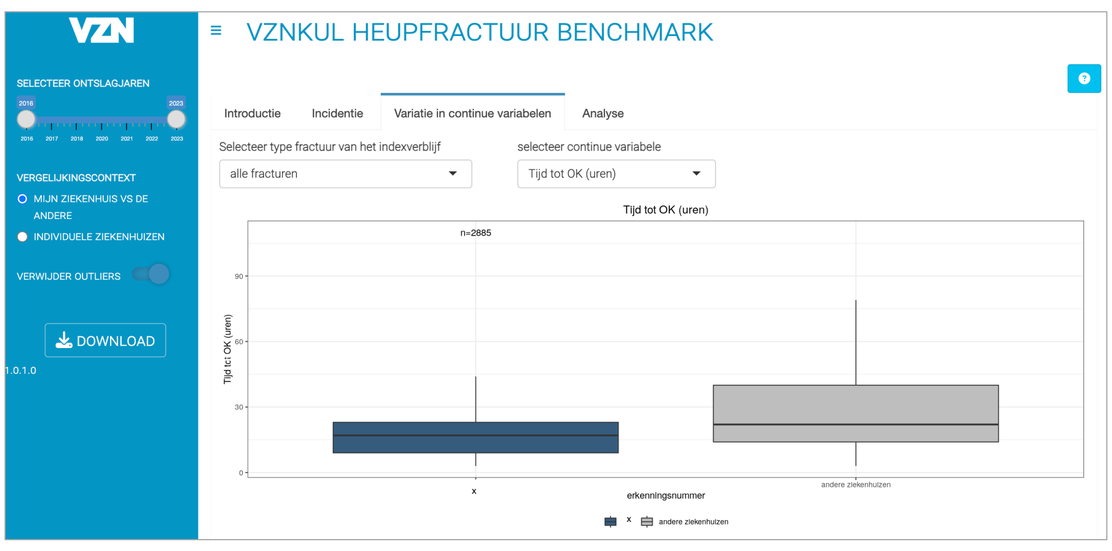


Figure a: Demo of VznkuL app showing time to surgery of hospital x compared to all other hospitals

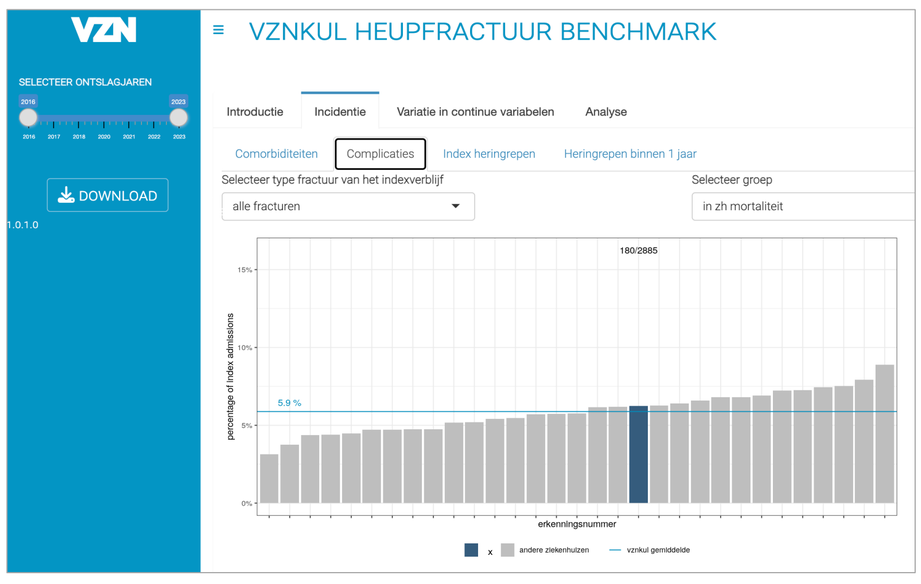


Figure b: Demo of VznkuL app showing in hospital mortality of the individual hospitals

Conclusions

1. The interactive app, which is based on HDD, has been well-received by hospitals due to its ease of use and elimination of manual data entry.
2. The hospital benchmark results are disseminated within VznkuL working groups.
3. The working group “Hip Fractures” decided to virtually meet every 6 months to discuss the results, and to agree on strategies for continuous improvement.

Vlaams Ziekenhuisnetwerk KU Leuven vzw

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