

Intervention fidelity within a clinical study on comprehensive medication reviews in hospitalised patients (MedBridge study)

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Background

MedBridge, a pragmatic cluster-randomised cross-over trial was started in February 2017 at Uppsala University Hospital and Gävle Hospital in Sweden [1]. The aim of MedBridge is to study the effects of hospital-initiated comprehensive medication reviews, including active follow-up, on elderly patients' healthcare utilisation compared to 1) usual care and 2) solely hospital based reviews. It is highly recommended to perform process evaluations within trials of such complex interventions to support the interpretation of the study results and provide a deeper understanding of its integration in daily practice [2]. Therefore, we performed this first sub-study as part of a larger process evaluation within the MedBridge study.

Objective

To evaluate the intervention fidelity within the first study period of the MedBridge study, specifically addressing intervention delivery in Uppsala and Gävle and protocol adherence in Uppsala.

Methods

Data for this study was collected during the first MedBridge study period (out of six) in Uppsala and Gävle. Patient data and data on identified discrepancies in the medication lists, identified drug-related problems (DRPs) and pharmacist proposals as a result of the medication reviews were obtained from the patients' electronic medical records. Classification of DRPs and pharmacist proposals were based on resp. Strand *et al.* [3] and the system developed by the French Society of Clinical Pharmacy [4]. All data was captured in Castor EDC® and analysed using Microsoft Excel®.

Results

Intervention delivery: Seventy-five medication reviews were analysed, see Table 1. Medication use without indication was the most prevalent DRP category in both Uppsala (32%) and Gävle (16%), see Fig 1. Proposals to stop medications (37%) and to adjust dosages (28%) were most frequent in Uppsala resp. Gävle, see Fig 2. Protocol adherence: Eighty-seven eligible patients were screened, see Table 2.

Conclusion

This study shows a high overall intervention fidelity in the first study period. This study provides valuable information about the performance of the current MedBridge study.

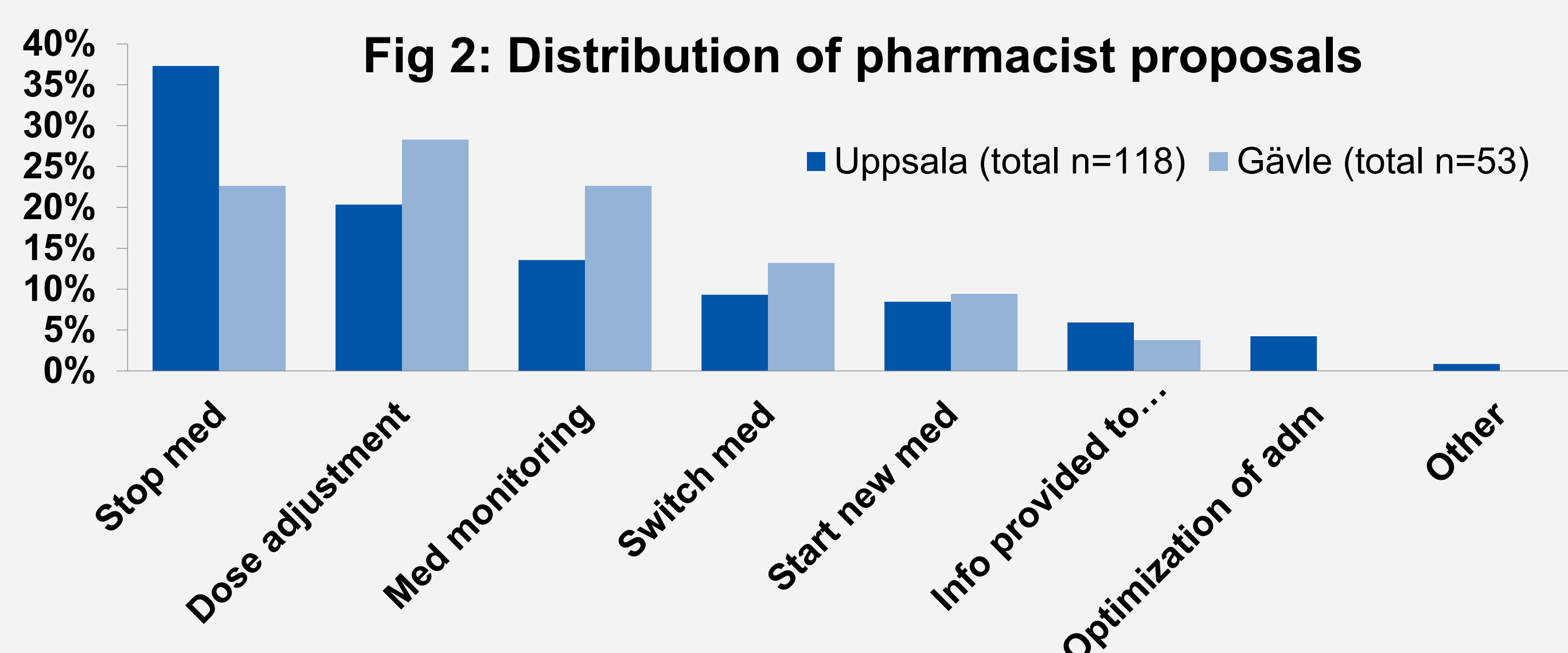
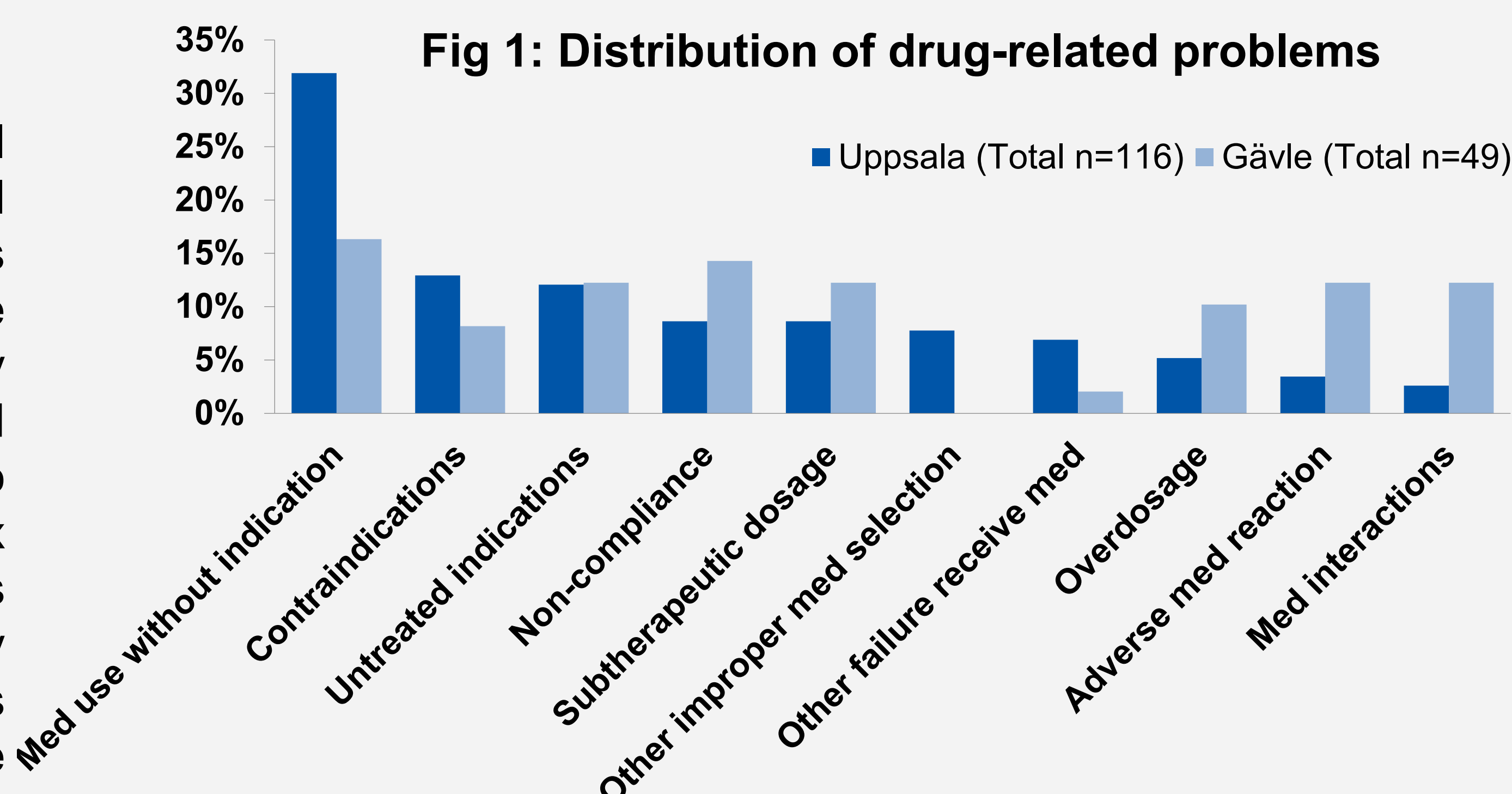


Table 1: Intervention delivery analysis of performed medication reviews.

Outcome measures	Uppsala hospital (n=39)	Gävle hospital (n=36)
Total discrepancies (n)	71	80
Discrepancies/review (n ± SD)	1,8 ± 3,0	2,2 ± 2,3
– Correction rate (%)	92	88
Total DRPs (n)	116	49
DRPs/review (n ± SD)	3,0 ± 2,8	1,4 ± 1,5
Total proposals (n)	118	87
– Acceptance rate (%)	75	64

SD: standard deviation

Table 2: Protocol adherence analysis of the first four weeks of the first study period in Uppsala.

Outcome measures (protocol adherence)	Control group, n (%)	Intervention group, n (%)
Eligible study patients	43	44
Asked for inform consent	43 (100)	42 (95)
Medication reconciliation admission		38 (97)
Comprehensive medication review		38 (97)
Medication reconciliation discharge		18 (46)
Follow-up-call		27 (73)

References

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