Potential impact on discharge summary medication list accuracy following implementation of an electronic prescribing system

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Background

• Projects converting from paper based to electronic prescribing provide an excellent opportunity to measure indicators pre- and post-implementation.

• Pharmacists dispensing medications on discharge noted incidences of incorrect medications listed on discharge summaries.

• Electronic medication management system (eMM) is claimed to be a safer system for medication prescribing compared to paper based prescribing.

Methods

National QUM indicator 5.8 was used to evaluate discharge summaries. Audits were conducted 3 months before and after eMM implementation. Patient selection was based on discharge prescriptions presented to pharmacy for dispensing, with summaries to be audited randomly selected from these prescriptions. Data collected is as per the indicator tool, as well as whether the patient falls in to the TSH Pharmacy Medication Management Plan (MMP) target group. Clinically appropriate interventions were made after audit data was collected.
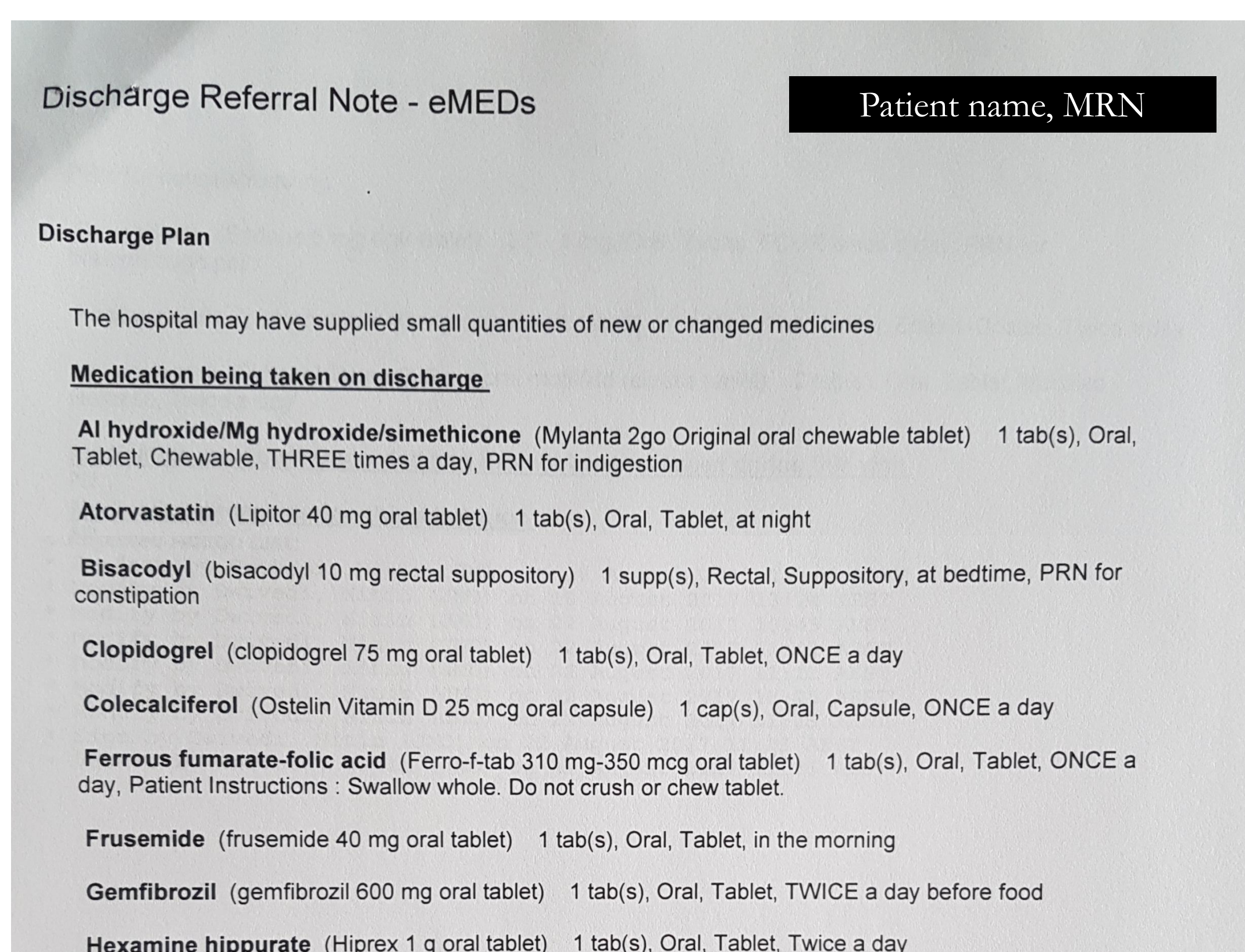

Image 1 : Example of a medication list as part of a eMM generated discharge referral

| Data point	Pre-conversion n=10	Post-conversion n=20
Is there a discharge summary?	10 (100%)	20 (100%)
Is a medicines list included in the discharge summary?	9(90%)	20 (100%)
Have all ongoing medicines been listed?	4 (44%)	18 (90%)
Of the medicines listed, has all required information. i.e. dose, route, frequency, duration (if required), been provided?	4 (44%)	18 (75%)
Are all listed medicines current? (i.e. there are no medicines listed that should not be prescribed on discharge)	8 (89%)	16 (80%)
Are all allergies and intolerances listed?	9 (90%)	15 (75%)
Was a 'Best Possible Medication History' (BPMH) available for reconciliation of the discharge summary?	2 (20%)	2 (10%)
Were the inpatient medication charts available for reconciliation of the discharge summary?	10 (100%)	20 (100%)
Was a Medication Management Plan (or similar) available for reconciliation of the discharge summary?	3 (30%)	18 (90%)
* Does the patient fall in to the TSH Pharmacy MMP target group?	3 (30%)	15 (75%)
* Does the discharge summary correlate to the NIMIC?	6 (60%)	11 (55%)

Table 1: QUM Indicator 5.8 data point specific results- percentage of discharge referrals assessed at TSH

Discussion

• Discharge summaries and the medication lists contained in them are used by healthcare professionals to continue care once patients are released from the hospital. eMM prescribing improves the accuracy of these lists. The reliability of these summaries will be even more important as there is wider uptake of the national My Health Record.

• For inpatient use, eMM was found to increase the availability of MMPs, but there was no increase in BPMHs performed.

• Continued user training could further improve these findings, as will more time, as users adjust to the new system. This research could be used to direct those training sessions, and collecting more data in the future could show whether the functionalities of the eMM system are being fully utilised.

Results

1- Pre-conversion

■ Yes 10%
■ No 90%

2- Post-conversion

■ Yes 60%
■ No 40%
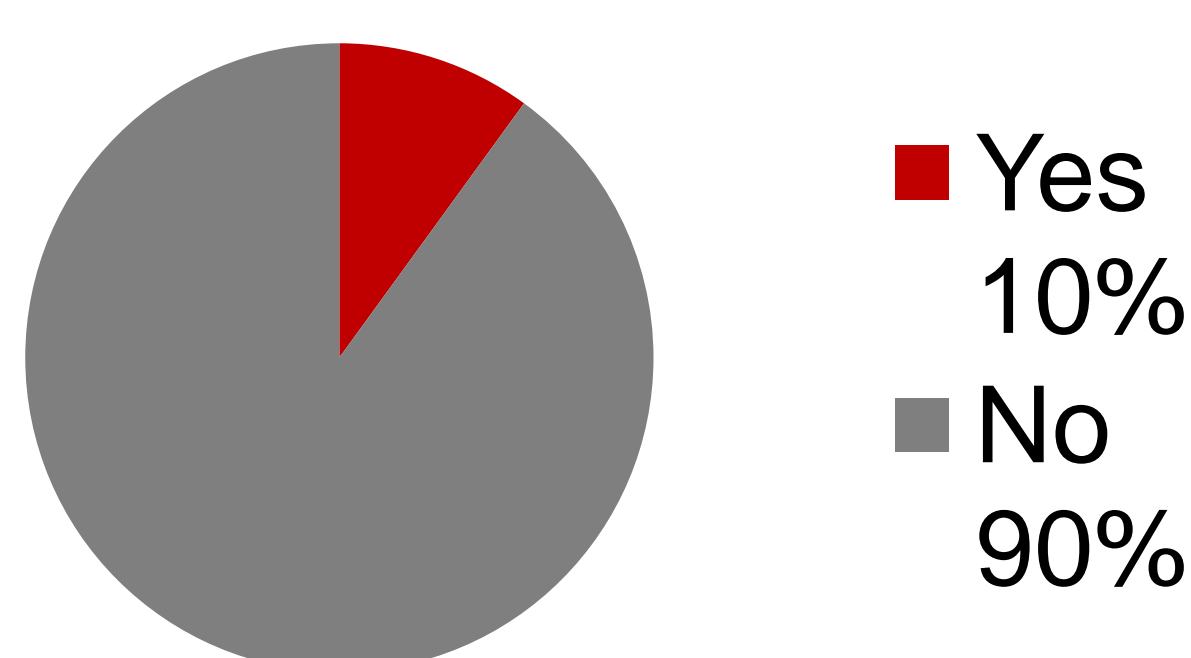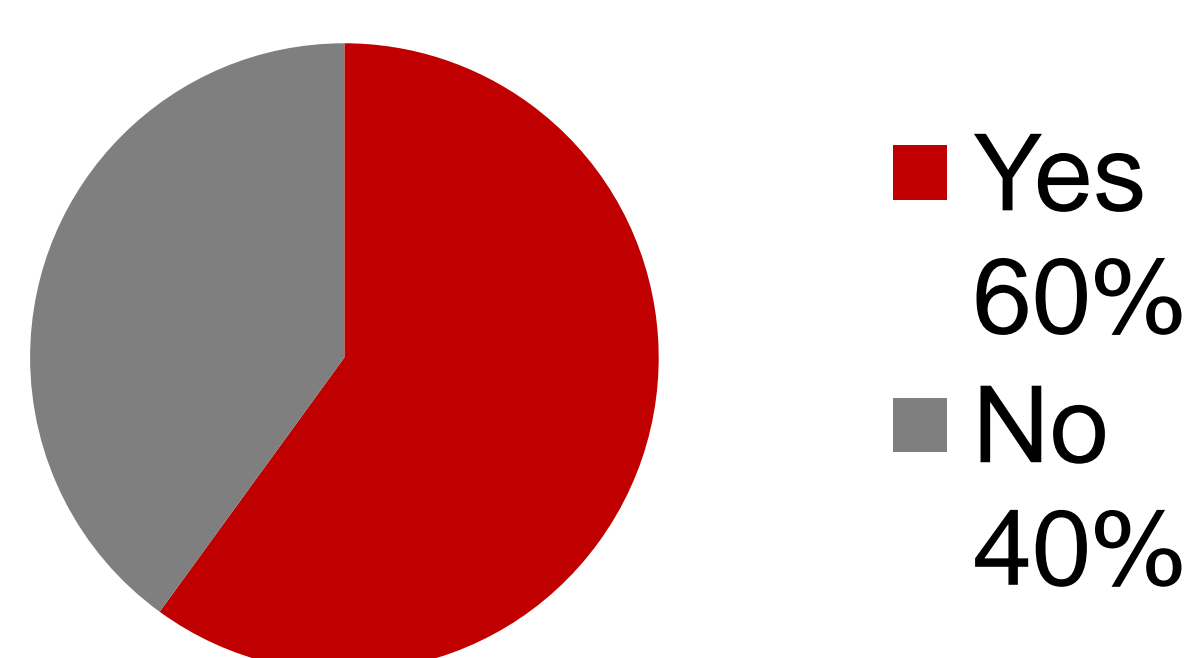
Pie charts 1 and 2: Indicator 5.8: Patients whose discharge summaries contain a current, accurate and comprehensive list of medicines

Conclusion

The use of eMM prescribing increased the proportion of patients whose discharge summaries contain a current, accurate and comprehensive list of medicines.