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Implementation and evaluation of a collaborative patient review and medication prescribing model in the Inflammatory Bowel Disease Short Stay Ward for biologic administration

Authors: Ms Low Kai Xin¹, Mr Lim Teong Guan¹, Ms Amanda Wong¹, Dr Ennaliza Salazar², Dr Tan Yi Yuan², Dr Tay Shu Wen², Dr Malcolm Tan², Ms Zheng Meiqing³, Dr Ong Wan Chee¹

¹ Division of Pharmacy, Singapore General Hospital (SGH), ²Department of Gastroenterology & Hepatology, SGH, ³Division of Nursing, SGH

Introduction

- Inflammatory bowel disease (IBD) is an idiopathic chronic condition that can manifest as ulcerative colitis or Crohn's disease.
- Treatments for IBD include intravenous (IV) and subcutaneous biologics. Traditionally, IV biologics could only be administered in the inpatient setting as it requires skilled personnel, appropriate facilities and system infrastructure for monitoring.
- Short stay wards (SSW) serve as an alternative to overnight inpatient admissions, alleviating high hospital bed occupancy and improving care accessibility for patients who require acute inpatient care.
- Collaborative prescribing (CP) model was introduced in 2018 to empower Advanced Practice Nurses (APNs) and senior pharmacists to provide services under a shared care model with physicians.

Aim

To describe the effectiveness and safety of a CP model implemented in the IBD SSW at SGH Centre for Digestive and Liver Diseases for stable IBD patients on biologic therapy.

Methods

Patients with IBD who require admission for biologics are admitted to the SSW. The CP practitioners review patients' disease condition, chart admission notes, order relevant investigations, biologic therapy, vaccinations and plan subsequent follow-up. Patients are referred to IBD physicians if they require medical intervention from complications or red flags.

Primary outcomes:

- Time to biologic administration and duration of stay at SSW compared to elective inpatient ward admissions
- Vaccination rates

Secondary outcomes:

- Adverse events from biologic administration
- 30-day unplanned admissions
- Patient satisfaction of the SSW assessed by survey

Results

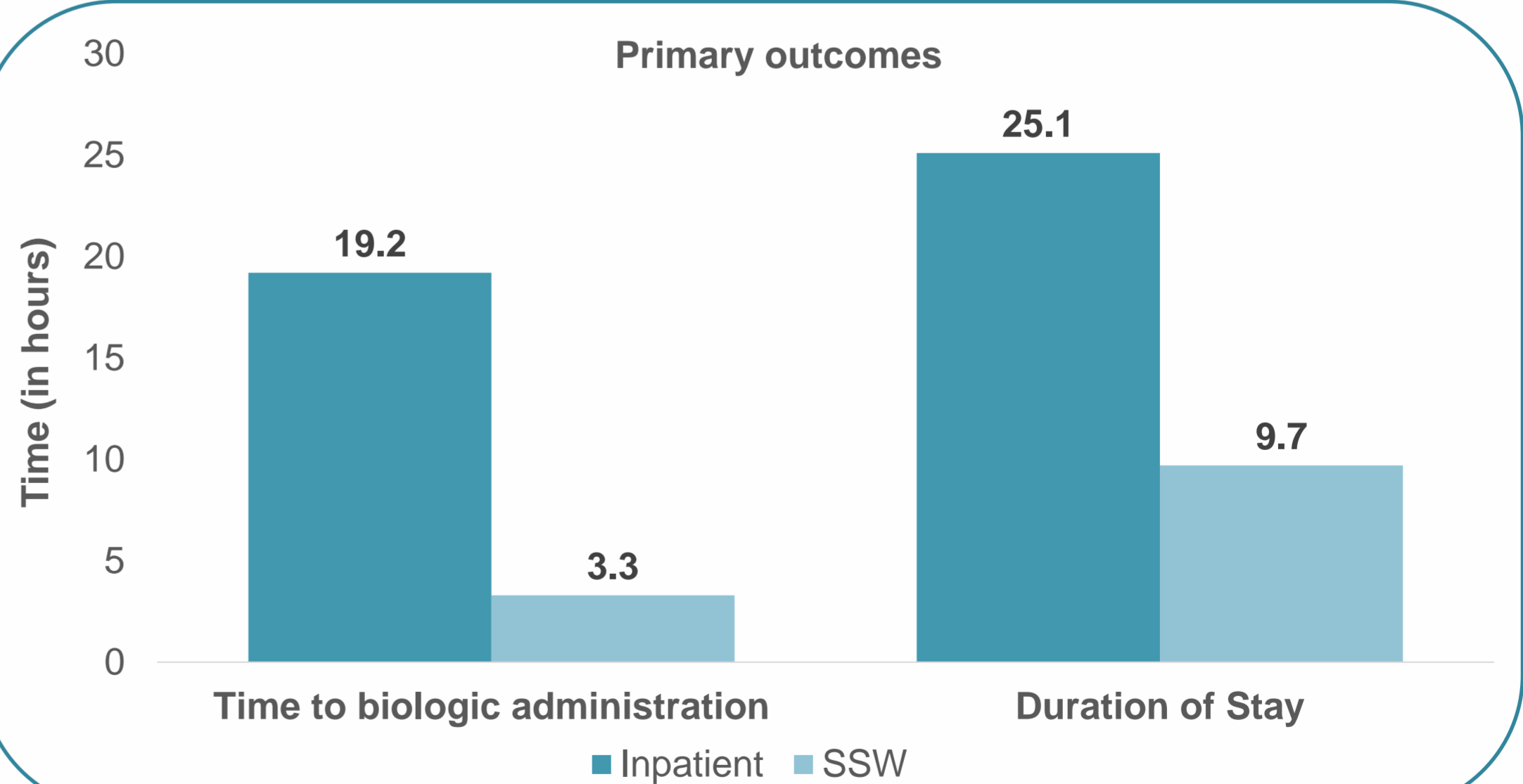
From August 2021 to December 2023, we provided 167 CP reviews for 51 IBD patients at the SSW.

The difference in average time to biologic administration was statistically significant in the SSW compared to the inpatient wards (3.3 versus 19.2 hours). This statistical significance is also observed in the duration of stay (9.7 versus 25.1 hours).

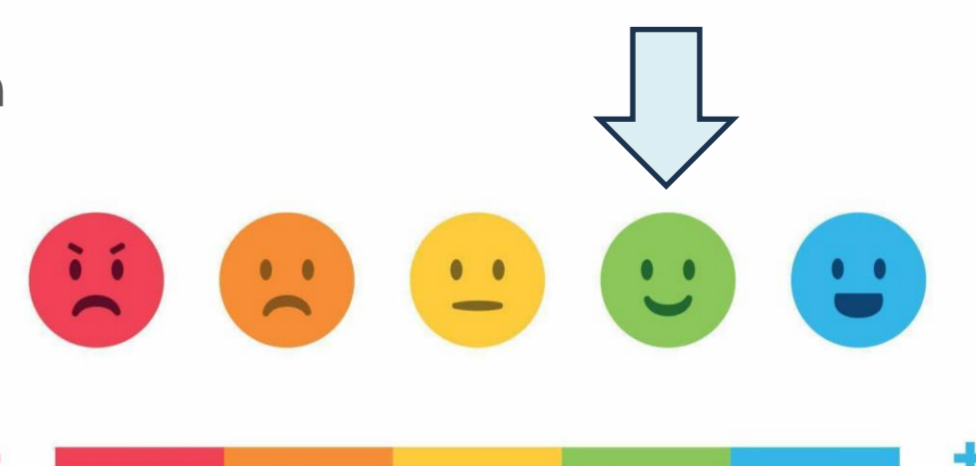
Twenty-eight of 51 patients (55.0%) received vaccinations. Two patients had acute symptoms with 1 necessitating same day admission. One patient developed skin rash and was referred to dermatology outpatient. No 30-day unplanned admissions were observed. Average patient satisfaction with this model was high (4/5 on Likert scale).

Conclusion

The implementation of our CP model in the IBD SSW is safe and effective. This model is scalable and can be adopted by other specialities, to improve healthcare resource utilization.



Patient Satisfaction



Acknowledgements

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