



Improving Deprescribing Rates in Hospitalized Patients

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Introduction

Up to **70%** of institutionalized patients have inappropriate medication usage¹.

This leads to



These adverse reactions cost Singapore over **\$168 million** annually² and **5%** annual operating costs²

Objective

Our aim was to reduce this by achieving 70% deprescribing rates for selected inappropriately prescribed medication.

We wanted to establish measures that were

- ✓ Simple and easy to implement on day-to-day basis
- ✓ Effortlessly scalable
- ✓ Low to no cost
- ✓ Would eventually cultivate a safe culture of targeting zero harm via deprescribing

Methodology

Baseline audit showed only **39%** of inappropriately prescribed medications were being deprescribed.

Our study identified multiple root causes which we targeted in a single ward over 6 months, with each new intervention introduced every second month:

- ✓ identifying commonly inappropriately prescribed medications (proton pump inhibitors, folic acid, glucosamine, mecobalamin and Neurobion)
- ✓ Employing memory aides such as the “S-I-R-E” (S-Symptoms; I-Indication, R-Risks, E-End of life)³
- ✓ Developing and instituting easily accessible deprescribing pocket guidelines
- ✓ Establishing convenient abbreviation tools to facilitate efficient documentation.

- ✓ This successful intervention was then replicated hospital wide to confirm the findings in our study.

Result

Our initial study looked at 630, out of which 559 patients were included, with the rest being excluded for death, hospital-to-hospital transfers, and palliative cases. The highest deprescribing rate was folic acid (87%), followed by proton pump inhibitors (omeprazole/esomeprazole) (81%), glucosamine (81%), mecobalamin (79%) and Neurobion (78%). Upon successful implementation, this strategy was subsequently rolled out to the entire hospital, showing consistent results.

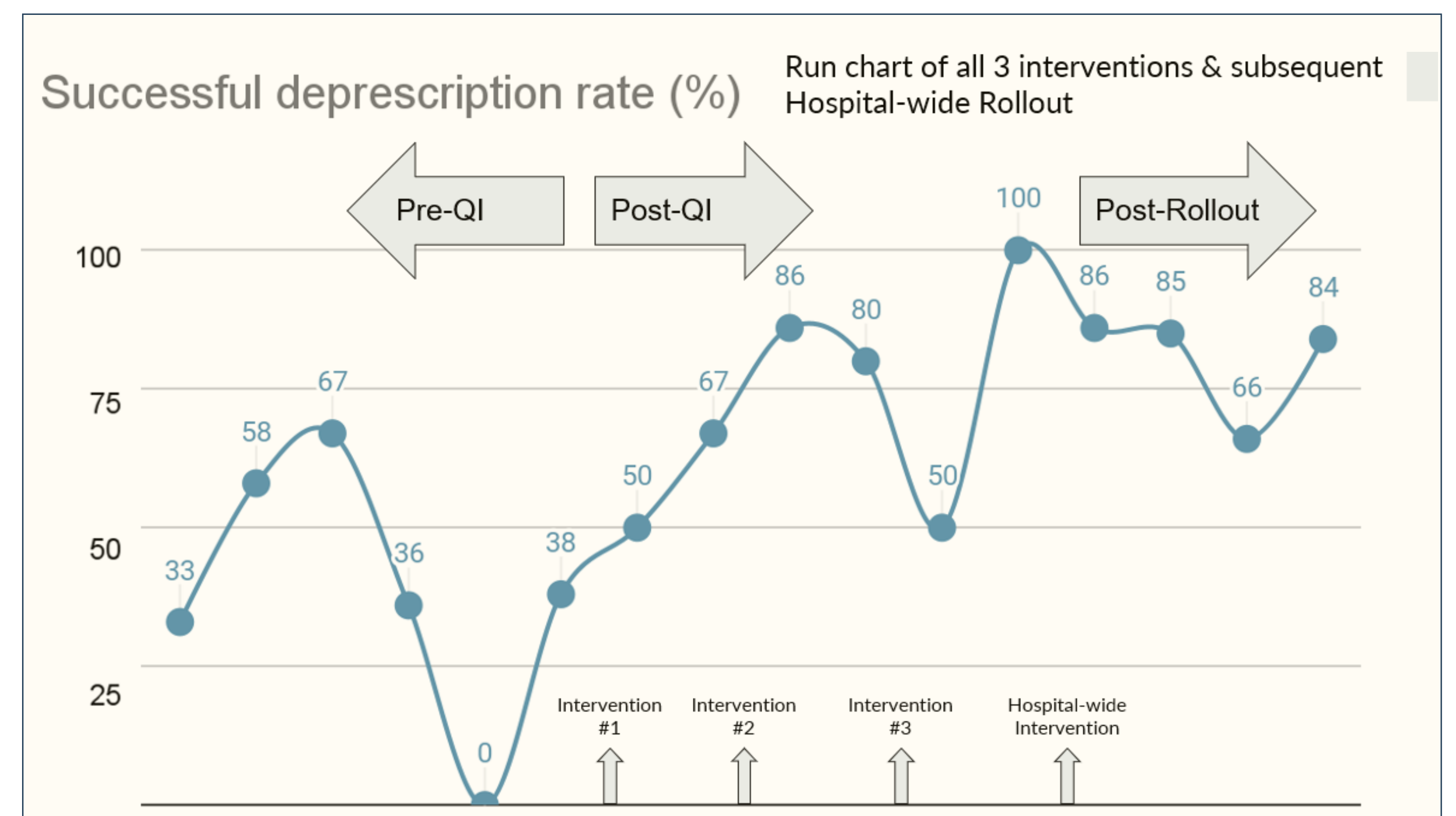
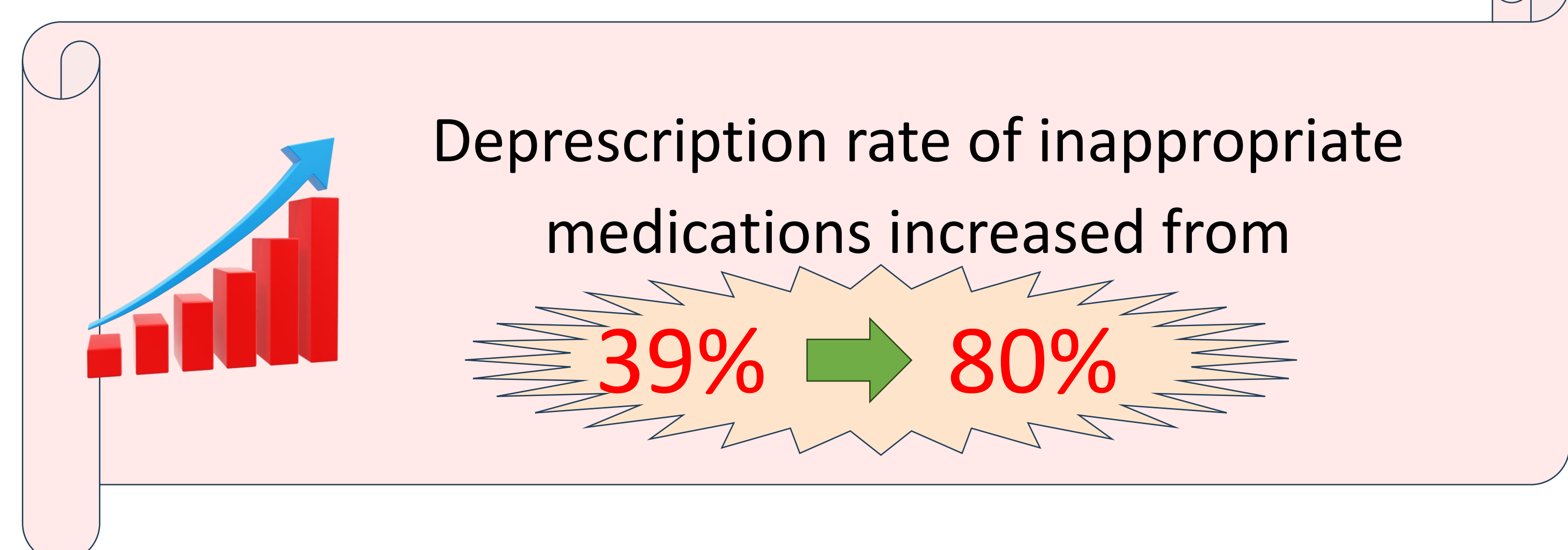


Figure 1: Deprescription Rates Pre-, Post- and Rollout



Conclusion

Successful deprescribing requires a multifaceted approach from both clinical team (medical doctors and pharmacists). Simple, scalable, easy to implement, low cost strategies such as this can aim to create a deprescribing culture to reduce rates of polypharmacy and bring better clinical outcomes for patients.

References

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