

Streamlining the practice of ordering urgent MRI brain scans for neurology patients

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Introduction

- The MOH healthcare performance indicator expects patients to receive urgent MRI Scan within 24 hours.
- The high volume of hospital wide urgent MRI orders faced by DDR translates into an increased practice in down triaging of inappropriate orders. Hence, affecting their efficiency.
- A collaboration between NEM and DDR was initiated to streamline the ordering process of urgent MRI Scans.

Project Aim

- Decrease the number of urgent MRI scan orders by reducing orders for those without urgency
- Increase the proportion of urgent MRI scans performed within 24 hours

Methodology

Gap analysis

- Performed data analysis to identify departments with highest order for urgent MRI scans
- Assessment on current ordering practices in Department of Neurology

Streamlining of ordering process

- Developed a "standardised ordering criteria" for urgent MRI scan orders between NEM and DDR
- Included a communication protocol

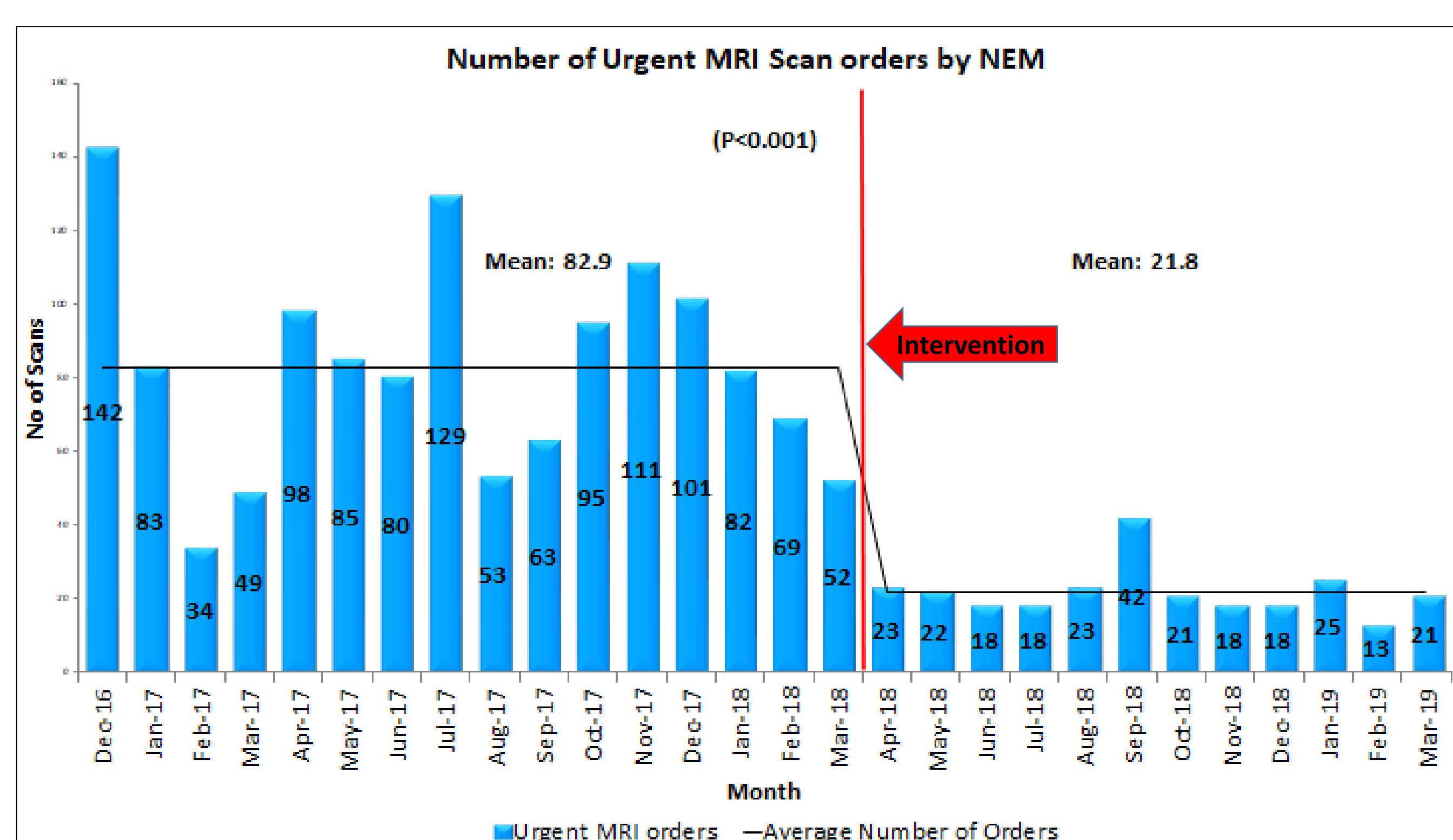
Action items

- Department level education on the established "standardized ordering criteria"
- Monthly monitoring of MOH HPO indicator

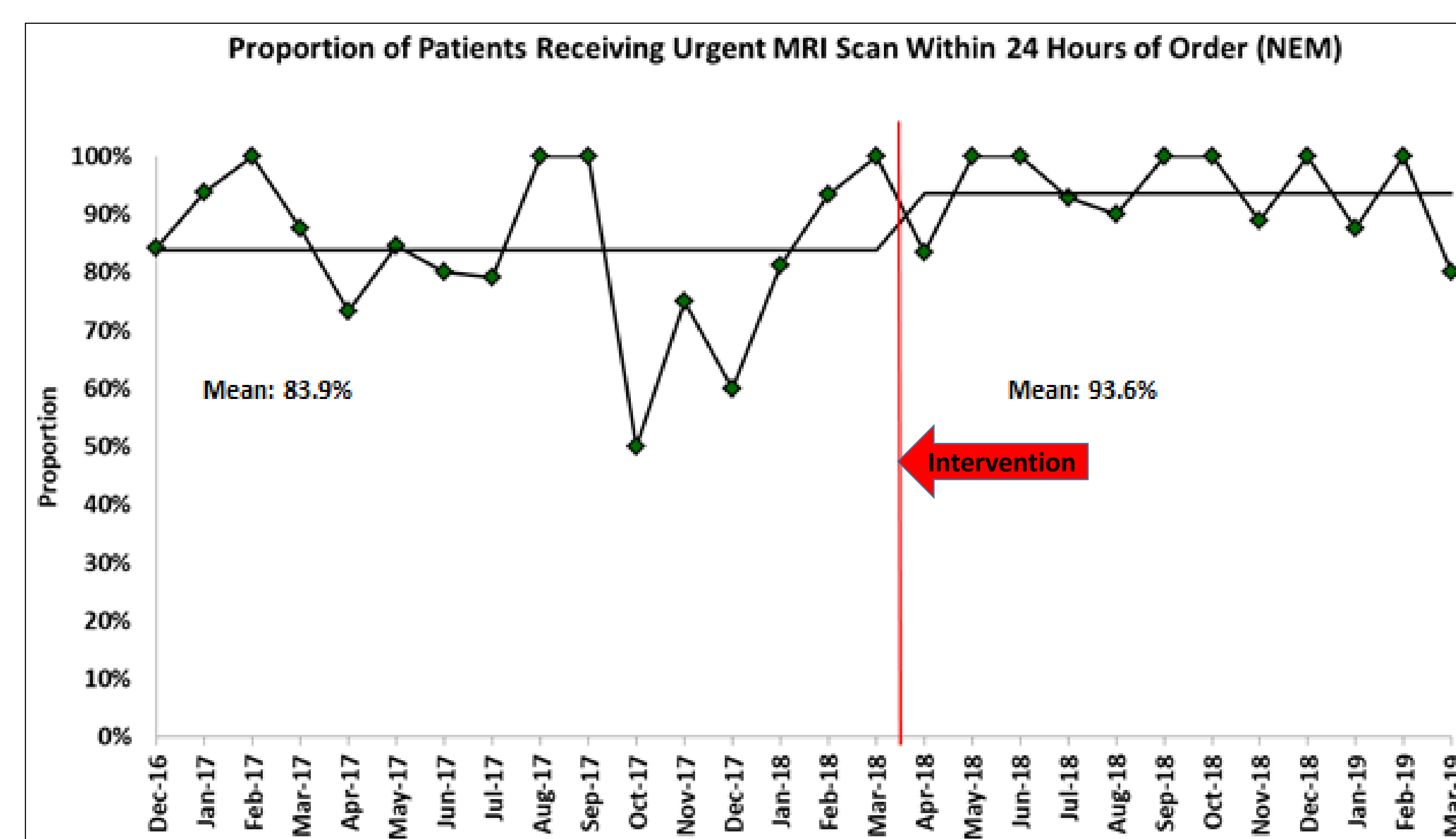
Statistical analysis

- Determined the difference in mean value before baseline and post-intervention period for both measures

Results



73.7% reduction in the mean number of urgent MRI orders, from 82.9 to 21.8 per month over 12 months ($P < 0.001$)



Increase in proportion of neurology patients with urgent MRI orders who had the scans performed within 24 hours from 83.9% to 93.6% ($P < 0.01$)

Conclusion

The aim of the project to reduce the number of urgent MRI scan orders and improving proportion of patients receiving Urgent MRI Scan within 24 hours was achieved. This was through collaborative agreement on standardised indications and an education initiative, strategies which may be scalable and adoptable by other departments.