

Project Title

Case management for At-Risk patients in the Emergency Department (CARED)

Project Lead and Members

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Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group(s) Involved in this Project

Medical

Applicable Specialty or Discipline

Emergency Medicine

Aim(s)

The CARED programme aims to right-site at-risk patients (30-days re-attenders and frail older patients) and reduce unnecessary ED re-attendances and acute hospital (re)admissions, reduce healthcare costs and improve patient experience in the ED at the same time.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category

Care Continuum

Acute Care, Crisis Care, Trauma Care

Keywords

Case Management, Emergency, Hospital Admissions, Emergency Attendances

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CASE MANAGEMENT FOR AT-RISK PATIENTS IN THE EMERGENCY DEPARTMENT (CARED) PROGRAMME

- CARE REDESIGN
- WORKFORCE TRANSFORMATION
- AUTOMATION, IT, ROBOTICS INNOVATION

MEMBERS: COLIN ONG, KAMALA VELU, KAIXIN NG, YAN JUN NG, CHRISTINE XIA WU, JOANNE YAN TING YAP

1. Define Problem, Set Aim

Background

The number of emergency department attendances and acute hospital admissions in Singapore have been increasing year on year.¹ This is associated with access block and ED overcrowding issues, which could further exacerbate the burden of care in the ED.²

Older adults and frequent ED attenders contribute disproportionately to this as they have higher comorbidities and thus require more investigations and take up more resources to meet their complex healthcare needs.³

Problem/Opportunity for Improvement

Given Singapore's rapidly aging population, many of whom will have multiple chronic conditions associated with old age, the rising demand for hospital resources will exert further strain on finite healthcare resources within the healthcare system.⁴

As such, an urgent care re-design in the ED needs to take place in a way that meets the complex care needs of increasing number of frail patients, without adding burden to an already overwhelmed healthcare system.

Aim

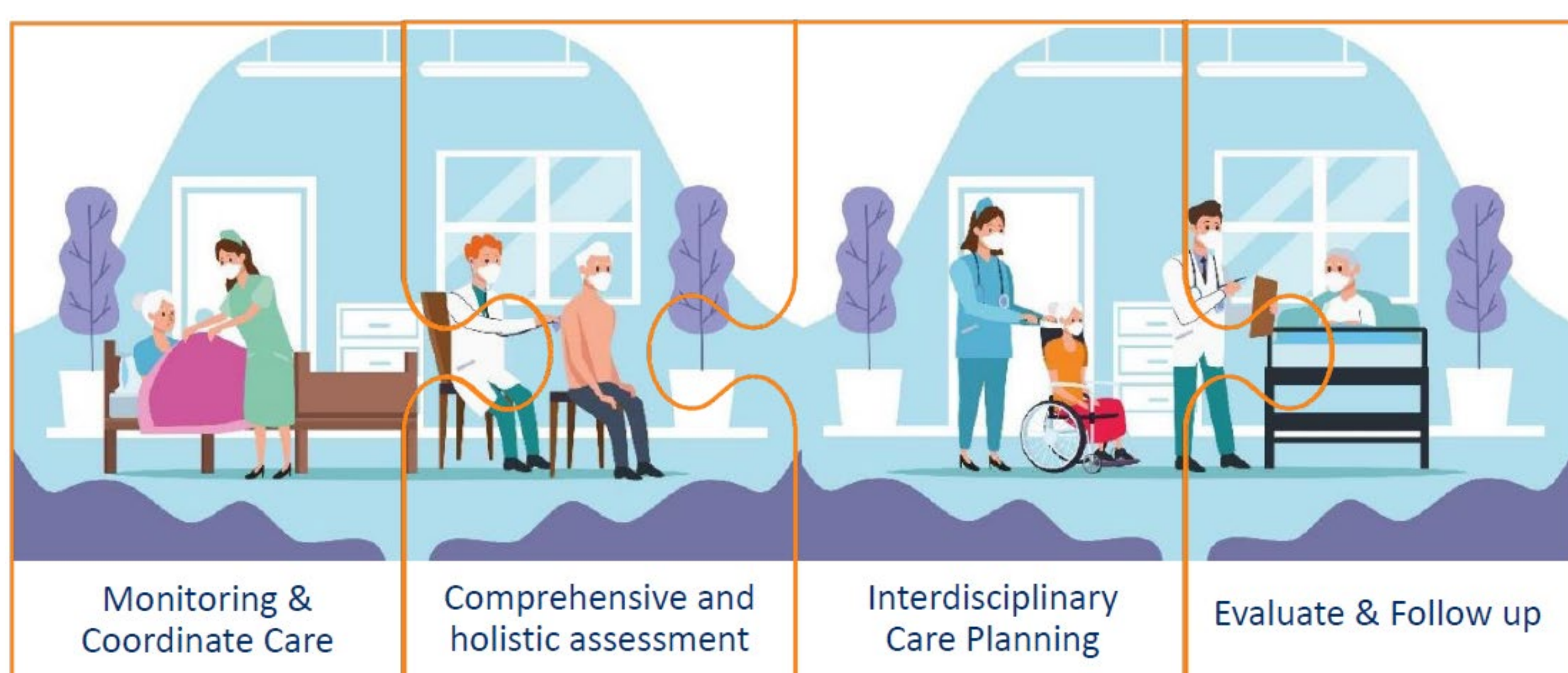
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2. Strategy for Change

Right Siting of Care

Right-siting is defined as "patients treated in the most appropriate location by medically competent teams at the lowest possible cost"⁵.

Patients are identified and screened by an ED case manager in the ED with the ability to do a holistic (geriatric) assessment and multidisciplinary intervention when necessary. Through this comprehensive approach, the aim is to provide the right care and right site the patient where appropriate.



Referrals by ED Case Managers



3. Interventions and Results

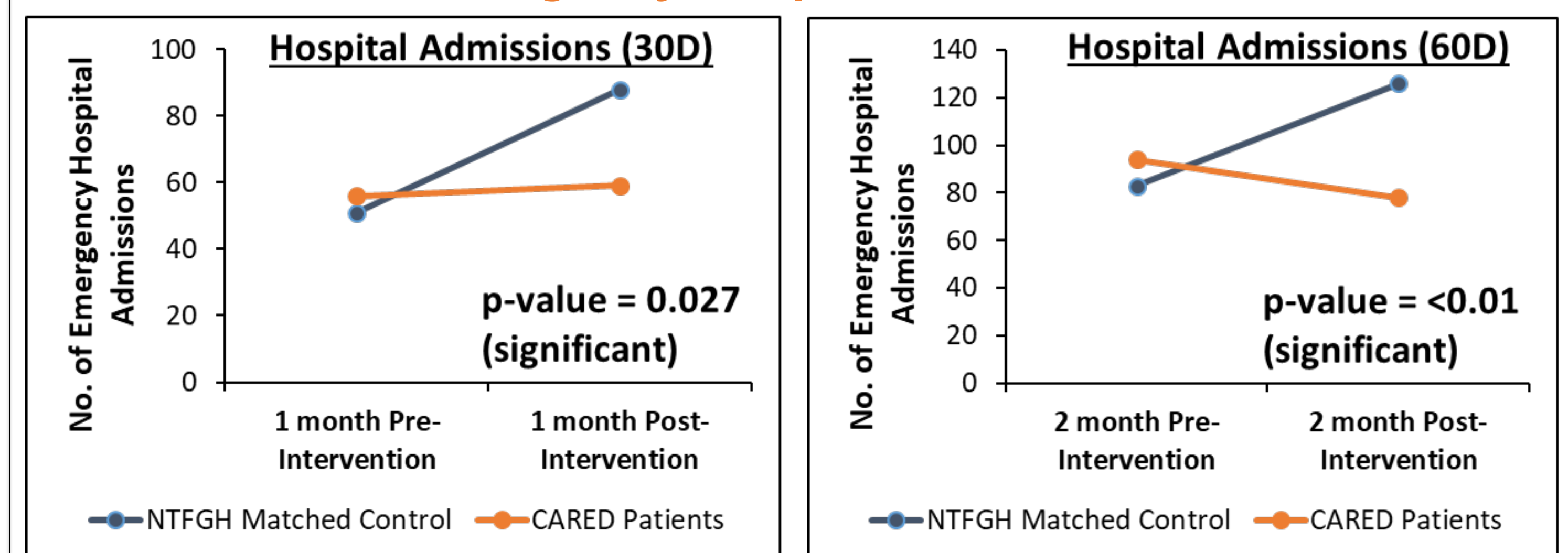
Key Interventions

Eligible cases are picked up by the Case Manager/Doctors in the ED based on patients' 30-day re-attendance risk scores, clinical frailty scores, and a clinically derived at-risk criteria.

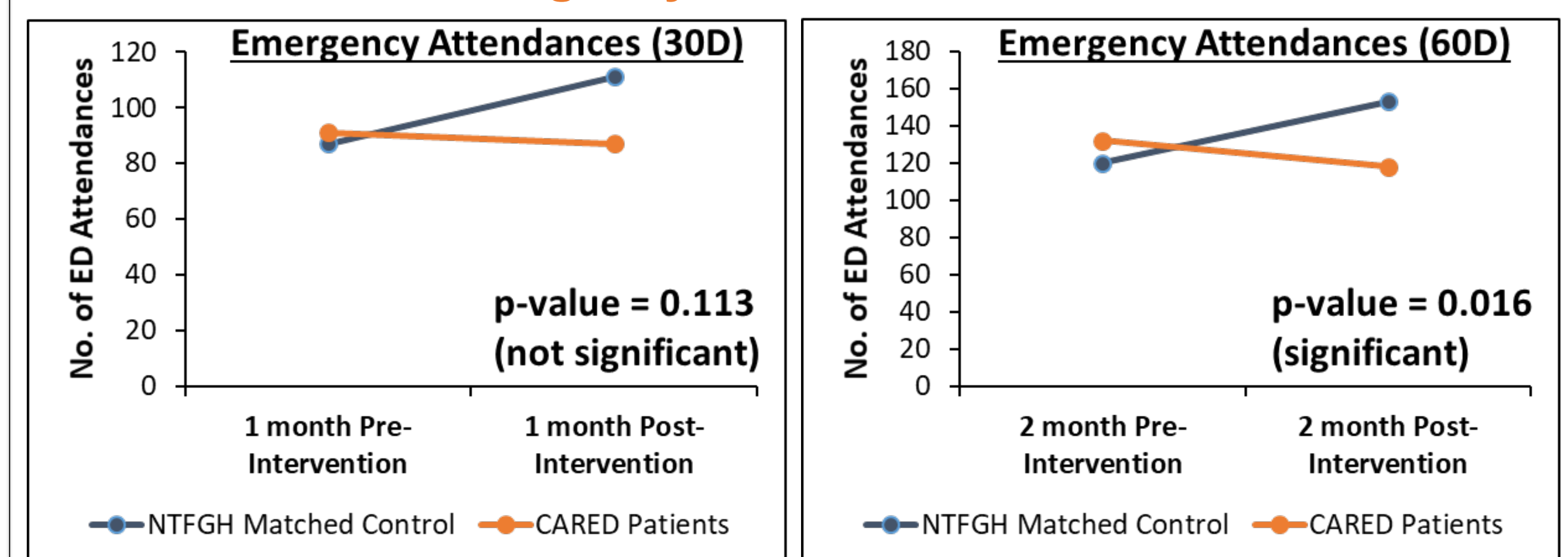
Reduction in Healthcare Utilisation

Propensity score matching was applied to balance the baseline characteristics between the case and control groups and the Generalising Estimating Equation (GEE) method was used to test the significant differences. The CARED programme was associated with a significant reduction in emergency hospital admissions at 30- and 60-day post-ED discharge (p-value<0.05) and emergency attendances at 60-day post-ED discharge for at-risk patients compared to usual care (p-value<0.05) (Figure 1).

A. Reduction in Emergency Hospital Admissions



B. Reduction in Emergency Attendances



4. Learning Points

Patient-centred care

- Case managers build positive relationships with patients to understand each individual's care needs. This helps provide patient-centred care which will not only improve patient experience in the ED but also encourage patients to follow through with the suggested interventions.

Building strong relationships

- A strong sense of trust between patients, case managers, allied health and community teams was one of the key enablers in the successful implementation of the programme.
- Building strong networks with community providers was key to ensuring a seamless and safe transition from hospital to community/home.

Data-driven culture

- Data is now a critical corporate asset and analytics will play a key role. Our strategy is to harness data analytics to extract value from data to evaluate the impact and outcomes from our programmes.

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