# Early assessment and intervention by an interdisciplinary Health and Social Care Professions (HSCP) team on the quality, safety and timeliness of care of older adults in the Emergency Department: Preliminary Findings from the OPTIMEND Randomised Controlled Trial

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## Background and Aim

Older adults are frequent users of emergency services and demonstrate high rates of adverse outcomes following emergency care. There is some evidence to suggest that HSCP teams working in the emergency department (ED) can enhance the care of older adults but the quality of these studies is mixed. This randomised controlled trial explores **the impact of early assessment and intervention by an ED-based HSCP team** on the quality, safety and cost-effectiveness of care of older adults.

## Methodology

The OPTIMEND trial adheres to the Consolidated Standards of Reporting Trials (CONSORT) guidelines. The trial protocol is registered on clinicaltrials.gov (NCT03739515). Ethical approval was received by the HSE Mid-Western Research Ethics Committee (#103/18) in September 2018. Recruitment began in December 2018 and continues until April 2019.

*Setting* – ED of University Hospital Limerick (UHL), an Irish regional hospital with a large catchment area.

*Participants* – ED attendees aged ≥65 years, medically stable (Manchester Triage System, triage cats. 2-5), off baseline mobility and functional status, able to provide written informed consent.

*Intervention* – Assessment and/or intervention by a HSCP team in the ED including **Senior Physiotherapist, Senior Occupational Therapist, Senior Medical Social Worker**.

*Control* – Usual ED care

*Randomisation* – After giving consent and baseline assessment (demographics, function, QoL, frailty, adverse outcomes) by a research nurse, patients are randomly allocated to intervention or control (opaque sealed envelopes). The trial flowchart is presented in Figure 1.

*Outcomes* – Primary outcomes included **ED length of stay** (hours) and **rates of hospital admissions**. Secondary outcomes include: ED re-visits, hospital admissions, healthcare utilisation (GP, HSCP, public health nurse) at 30-day and 6-month follow-up; function and quality of life (baseline and follow-up); patient satisfaction.

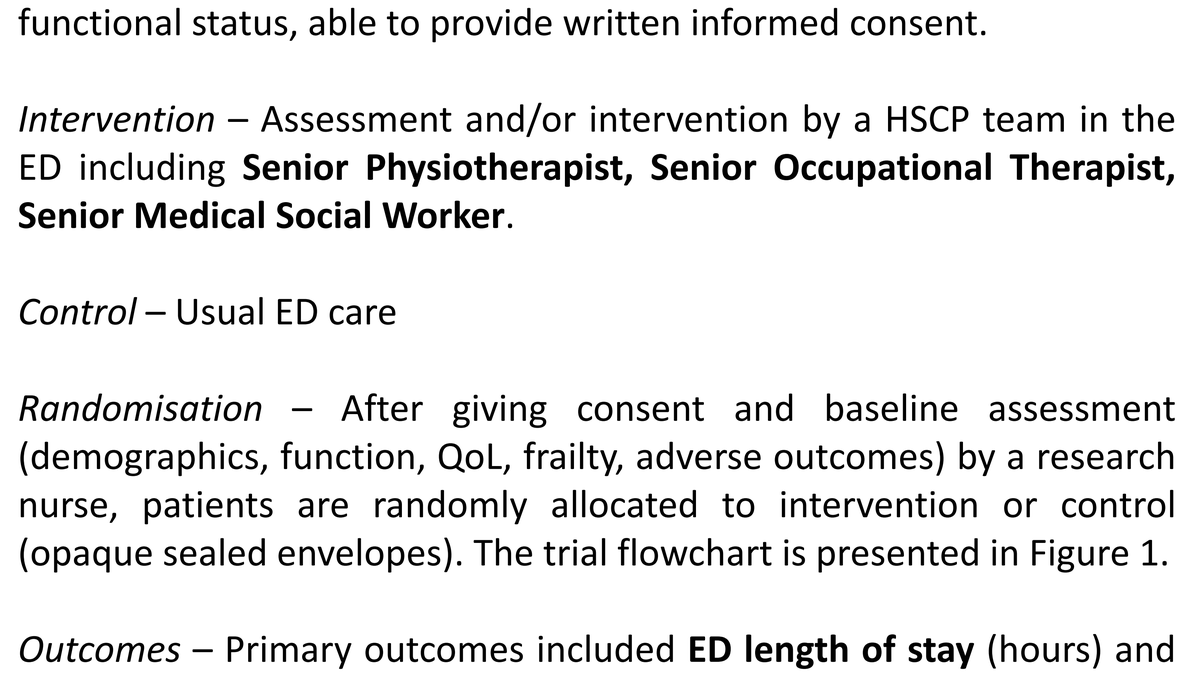


*Figure 1*. Trial flow

## Preliminary findings (N = 140)

Older adults allocated to the intervention group (Mean age = 80.4 ± 6.7; 61.4% female) spent **shorter time in the ED** ($p$ = 0.000, Figure 2a) and had **lower rates of admissions** ($p$<0.001, Figure 2b) when compared to those in the control group (Mean age = 79.2 ± 7.3; 50% female).

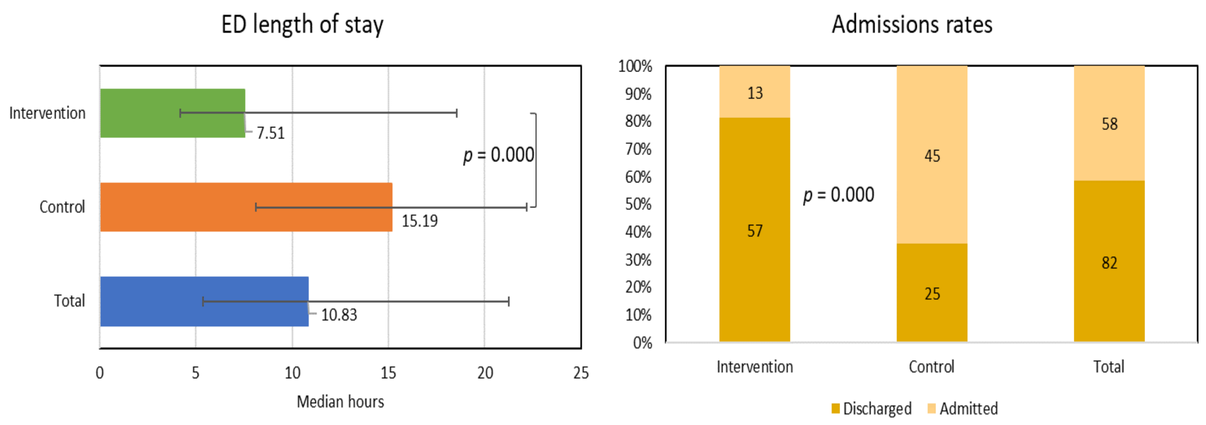


*Figure 2*. a) ED length of stay by group and total sample; b) admission rates by group and total sample

For older adults who were admitted, there were no differences in hospital length of stay between intervention and control group (15.5 vs. 23 median days, $p$ = 0.36). Intervention and control group reported similar levels of satisfaction (26.3 vs. 25.7, $p$ = 0.21).

At 30-day follow up, healthcare utilisation rates were higher in the intervention than control group (77.2% vs. 61.4%, $p$ = 0.04), but no differences emerged in terms of number of ED re-visits (13 vs. 13, $p$ = 1.00) or unscheduled hospital admissions (10 vs. 13, $p$ = 0.47). Also, there were no differences in function (Barthel score: 16.4 vs. 14.5, $p$ = 0.98) or quality of life (EQL-5D-5L score 9.8 vs. 11.5, $p$ = 0.98)

## Conclusions

Preliminary findings from our trial indicate that HSCPs working in team in the ED can contribute to improve older patients' care by reducing their duration of stay in the ED and increasing rates of discharge home.

Important factors contributing to these outcomes include the triage categories (3-5) seen by the HSCP team, enhanced shared decision making, and higher coordinated assessment and care thanks to links with community services.

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