

Abstract

Introduction: The management of frail older patients requires complex multi-disciplinary management with rigorous communication and handover. The ED-FIT Team is a group of allied health professionals reviewing patients aged over 75 years of age attending the study site Emergency Department. The team works collaboratively utilising traditional tools such as a whiteboard and paper to facilitate communication. This research investigates the ability of healthcare information technology to facilitate collaborative working in a complex multi-disciplinary environment.

Objective: This research seeks to design a digital system for the ED-FITT process and to evaluate the impact of this digitisation on the efficiency of the process, the channels of communication utilised by the team and on the completeness and availability of data from completed assessment forms.

Methodology: An iterative design process was undertaken and combined with a mixed methods research methodology to evaluate the system. The impact of the system on efficiency was evaluated by assessing the time, number of steps required to complete the assessment. Communication was assessed by considering the volume of onward referrals generated. Completeness and availability of data was assessed using the QNote tool. All aspects were discussed with participants utilising a semi-structured approach to elicit opinions regarding the impacts of the system.

Results: In terms of efficiency, the new system took slightly longer (20.30 minutes (pre), 23.81 minutes (post)), required fewer steps on average (9.75 (pre), 9.08 (post)) and was met with generally positive feelings from end users. Regarding communication, there was an increase in the referrals made and a consensus that automation of process was beneficial. The new system provided improved availability of data with 100% of forms compared to 67% available and a marginal improvement in quality using the QNote score (69.39 (pre), 73.81 (post)).

Conclusion: The system was successfully deployed and demonstrated modest improvements in terms of efficiency, communication and data quality.