E.3 Virtual wards

Study	Monitor 2015[204]			
Study details	**Population & interventions**	**Costs**	**Health outcomes**	**Cost effectiveness**
Economic analysis: CC **Study design:** Discrete event simulation model **Approach to analysis:** Simulation model of individual patients flowing through a local health economy based on input data including patient characteristics, system capacity and referral pattern. Comparison of capacity used with and without a scheme with unit costs applied, broken down into fixed, semi-fixed and variable. **Perspective:** UK NHS (societal also included) **Time horizon[(a)]:** 5 years **Discounting:** Costs: n/a; Outcomes: n/a	**Population:** Simulated hospital inpatients. **Cohort settings:** n/a **Intervention 1:** Usual hospital care. **Intervention 2:** 24 hour remote triaging, advice and treatment to patients through video link. Aim to prevent unwell patients from attending hospital. Scheme provided by senior nurses to primarily frail elderly living in nursing homes.	**Total cumulative costs over five years:** Intervention 1: NR Intervention 2: NR Incremental (2−1): £0m (95% CI: NR; p=NR) **Cost of patient spell in fifth year of the scheme:** Intervention 1: £690 Intervention 2: £286 Incremental (2−1): -£404 (95% CI: NR; p=NR) **Currency & cost year:** UK pounds; year NR **Cost components incorporated:** Setup, fixed, semi-fixed and variable costs.	N/A	Results show the scheme will not break even over five years. However, in the fifth year, uptake of the service is high enough to see it be cost saving. **Analysis of uncertainty:** Estimated that a similar scheme would need to cost around £4,000 to £4,300 per patient intervention to be cost saving compared to treating patients in the acute setting.

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Data sources

Health outcomes: NA **Quality-of-life weights:** NA **Cost sources:** Bottom-up costs reviewed through data requests to providers running similar schemes and used to build costs models identifying the workforce, variable and setup costs of schemes. Identified key factors that influence cost structure of schemes and then test with other providers and clinicians. Acute pathway costs from a combination of patient-level information and costing systems, cost data and ward staffing model.

Comments

Source of funding: NHS England **Applicability and limitations:** Not enough detail around methodology and modelled cohort. Costs not explicitly reported as per patient value. Cost year not reported for comparison. Full breakdown of cost inputs and outputs not reported.

Overall applicability[(b)]: Partially applicable   **Overall quality[(c)]:** Potentially serious limitations

Abbreviations: CC: Comparative costing analysis; 95% CI: 95% confidence interval; CUA: cost–utility analysis; EQ-5D: Euroqol 5 dimensions (scale: 0.0 [death] to 1.0 [full health], negative values mean worse than death);; ICER: incremental cost-effectiveness ratio; NR: not reported; pa: probabilistic analysis; QALYs: quality-adjusted life years; SA: sensitivity analysis.
(a) One year modelling with extrapolation for further 4 years.
(b) Directly applicable/Partially applicable/Not applicable.
(c) Minor limitations/Potentially serious limitations/Very serious limitations.