

Supplementary table 3: Studies investigating patient level outcomes: service use, adherence with advice and hospitalisations (6 studies)

First author Year Country Reference	Study design	Sample / data size	Staff conducting digital triage	Participants	Comparison groups used in analyses	Key patient level service use findings
Foster 2003 England 27	Routine data analysis & data linkage	4493 calls, of which 193 were advised to go to ED	Nurse	General population	Three groups: 1) Callers triaged to ED who attended ED 2) Callers triaged to ED, who did not attend 3) Callers who received different triage advice who attended ED	ED Attendance 8 % (358 of 4493) of callers were advised to attend ED. Of these, where data was available, 64.2% (124 of 193) followed the advice to visit ED with the same presenting complaint. • 2.4% (99 of 4135) went to ED for the same presenting complaint as their contact following triage despite being given other advice Hospitalisations 66.9% (83 of 124) of those attending ED after being advised to were sent home without further referral. However, 10 were referred on within the hospital and seven were admitted. 0.3% of callers (15 of 4235) who were not advised to attend A&E and were subsequently admitted raised concerns about the quality of triage.
Sprivulis 2004 Australia 34	Routine data analysis & data linkage	13,019 presentations to ED	Nurse	General population	Two groups: 1) ED users called a digital triage service in 24 hours prior to attending ED 2) ED users not digitally triaged	ED Attendance 6.5% (842 of 13019) of patients attending ED had contacted the digital triage service in 24 hours prior to attendance. Hospitalisations For those triaged to 'immediate/prompt care' and 'non-urgent' care by HD and who presented to the ED (in the latter group, against the triage advice), there was a similar hospital admissions rate and ED triage distribution.
Stewart 2006 England 37	Routine data analysis & data linkage	3312 calls to NHS Direct North West Coast,	Nurse	Children and young adults aged under 16	Two main matched patient groups: 1) Patients advised, through digital triage, to attend A&E in the last 12	ED Attendance •88% of those digitally triaged to attend ED did so within 1 hour. • 88% of those advised to take another course of action attended A&E within 4 hours. • Some indication that those triaged presented with higher urgency complaints, based on higher urgency advice within ED triage using "Manchester triage group 5-point system" for digitally

		and 14,029 patients who attended ED (between the 1st of December 2002 and 28th of February 2003)			hours (n = 299) 2) Patients given alternative triage advice, but who still attended ED (n=163) Additional groups: Those attending ED who were GP referred and self-referred.	<p>triaged patients, compared to self-referrals.</p> <ul style="list-style-type: none"> •74% of digitally triaged patients were discharged home compared to 56% of those referred by GPs and 64% of those who self referred. • Hospitalisations: 27% of GP referrals, 10% of the self-referral group and 15% of NHS Direct referrals were admitted. Of those admitted patients referred by NHS Direct 52% were advised to attend A&E, and 48% were given other advice.
Byrne 2007 England 26	Surveys	268 callers	Nurse	Calls about abdominal pain, cough or sore throat	None	General Practice use Among callers digitally triaged to self-care, 93% (64 of 69) reported that they had followed the advice to look after themselves at home, while five 7% (5 of 69) reported that they had chosen not to do so. Of the five, three said they had decided to go to their GP because, despite the advice of NHS Direct, they thought the condition was sufficiently severe to require such a visit. A further two said that their condition deteriorated after being triaged, so they then decided to contact their GP
Siddiqui 2019 Australia 39	Routine data analysis & data linkage	12,741 triaged cases linked to 72,577 ED presentations	Nurse	General population	n/a	ED Attendance • Compliance with ED attendance advice was between 29-69% • There was higher compliance if ambulance was advised (53-69%) and • lowest compliance when self-transport to ED was recommended (29%). • Appropriateness of attendance to ED for those using TTAC was comparable to those who hadn't been triaged by TTAC. • 4% of ED presentations between 2016-2017 had contacted the digital triage service

Turbitt 2015 Australia 31	Surveys	1150 parents attending ED	Nurse	Parents of children	Some comparisons between parents who called and did not call the digital triage service.	ED Attendance • 20% (230 of 1150) of parents had called the digital triage service ahead of ED attendance for their child's lower urgency concern • 70% of those digitally triaged attended ED because they were advised to attend. • 22% of those digitally triaged attended ED because they were still worried after receiving alternative digital triage advice (not to attend). • Of overall ED users: 16% of respondents had not heard of the digital triage service; 53% were aware of the service, but thought it would not be helpful.
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