# TEP – The Evidence

The following papers are all recent articles looking at the use of Treatment Escalation Plans (TEP) or similar care plans for patients nearing the end of life.

1. TEP reduces the frequency of non-beneficial interventions happening to patients in hospital during their last admission before death by more than twofold.

   *The impact of a treatment escalation / limitation plan on non-beneficial interventions and harms to patients approaching the end of life.*

   *Lightbody et al. BMJ Open 2018; 8:e024264. doi: 10.1136/bmjopen-2018-02426*

2. Patients with a Clinical Frailty Score of 5 or more do not survive to hospital discharge after an in-hospital cardiac arrest.

   *Frailty status predicts futility of cardiopulmonary resuscitation in older adults.*

   *Sarah E. Ibitoye et al, Age and Aging 2021 Jan 8;50(1):147-152. doi: 10.1093/ageing/afaa104*

3. Patients with a TEP in place are significantly less likely to receive intravenous antibiotics inappropriately at the end of life.

   *Antimicrobial use and misuse at the end of life: a retrospective analysis of a treatment escalation/limitation plan.*

   *Wilder-Smith et al., J R Coll Physicians Edinb 2019; 49: doi: 10.4997/JRCPE.2019.XXX*

4. The rate of complaints from relatives of a patient who died in hospital is halved when a TEP is used compared to matched patients without one.

   *A case-controlled study of relatives' complaints concerning patients who died in hospital: the role of treatment escalation / limitation planning.*

   *Taylor et al., Int. J. Qual. Health Care. 2020; 32: 212-218.*

5. Using a TEP reduced the overall number of ITU referrals in one trust by 12%.

   *Improving Resuscitation Decisions: A Trust-Wide Initiative.*

   *Fadel et al., BMJ Open Quality 2018; 7: e000268 Doi: 10.1136/bmjoq-2017.*

6. Reduced hospital costs are associated with fewer non-beneficial interventions. Patients with a TEP (n=152) had a mean reduction in hospital admission costs of £220.29 compared to those without a TEP (n=132).

   *Economic impact of reduction in non-beneficial interventions following the introduction of a treatment escalation / limitation plan.*

   *Bouttell et al., Int. J. Qual. Health Care 2020.*

7. Patients with a TEP were four times less likely to receive inappropriate out-of-hours care compared to patients without one.

   *Implementation of a combined CPR decision and TEP document in a district general hospital.*

   *Stockdale et al., BMJ Quality Improvement 2013. Doi: u202653.w1236/bmjquality.*

8. Patients with a TEP in place are significantly more likely to have their End of Life Care preferences respected. This benefited the patients, but was also associated with significantly less stress and anxiety in their families.

   *The impact of advance care planning on end of life care in elderly patients: randomised controlled trial.*

   *Detering et al., BMJ 2010; 340: 1345.doi.org/10.1136/bmj.c1345*