

Themes:	Evidence from six papers:
<p>1. Assessment/ screening of falls including risk of falls</p>	<p>No high-quality evidence found in pre-hospital screening (Zozula et al., 2016).</p> <p>Snooks et al., (2017) randomised trial and systematic review had seven interventions and found a mix of high- and low-quality results from the large variety of screening measures.</p> <p>9 item assessment tool developed by the authors (Infinger et al., 2019)</p> <p>Mikolaizak et al., (2013) used 'Intervention to PREvent Falls after Emergency Response' (iPREFER) protocol for screening. Following non transportation eligible participants were chosen by paramedics on scene.</p> <p>Snooks et al., (2017) randomised trial used Support and Assessment for Fall Emergency Referrals (SAFER) 2 within paramedic assessment of falls.</p> <p>Quatman et al., (2018) used firefighter paramedics to implement this initiative, formal workshops addressing skills and strategies were learnt to implement community paramedicine.</p>
<p>2. Risk and rate of falls after referral or intervention</p>	<p>Zozula et al., (2016) found two studies addressing risk and rate of falling. Minimally biased high-quality evidence was not found within this study.</p> <p>Snooks et al., (2017) review had five studies addressing this theme, of which was found if treated by emergency services patients in the intervention groups had fewer falls and calls in the future, and if attended by paramedic practitioner less likely to be admitted to hospital.</p>

	<p>Mikolaizak et al., (2019) found no significant differences were found between control and intervention groups for falls. Adherence to the intervention compared non-adherence revealed fewer falls however this was not significant.</p> <p>With Snooks et al., (2017) SAFER2 trial fewer 999 calls were made compared to to the control group.</p> <p>Quatman et al., (2018) incidence of falls significantly decreased as did fall related calls resulting in transport with this initiative.</p>
<p>3. Intervention outcome measures and the results</p>	<p>In Zozula et al., (2016) Logan et al., (2010) found a significant reduction in falling rate in the intervention group, however did not find significance in mortality, fractures and hospital admissions. This group did a multifactorial fall prevention programme based on patient's chief complaint. In comparison, Snooks et al., (2014) did not demonstrate significant findings in mortality, hospital admissions or emergency department attendance. Secondary outcomes such as probability of discussing fall with primary care practitioner, enrolment to fall prevention programme probability, in home assessment probability and mortality (Shah et al., 2006; Shah et al., 2010; Shandro et al., 2007; Comans et al., 2013; Snooks et al., 2014; Logan et al., 2010).</p> <p>Snooks et al., (2017) review outcome measures in this review that were analysed were number of referrals, attempted to refer, patients referred because of falls, referrals made for patients experiencing a fall and patients conveyed to emergency department. Of these, there was a mix of significant and nonsignificant results. Significant results were seen for reduction in hospital admissions, fear of falling, fewer falls, increased satisfied care and active lifestyles.</p>

There were no outcome measures in Infinger et al., (2019) study as it was a development of an assessment tool. Though the outcome of this study was to develop a valid and reliable tool, Cohen's kappa (k) was used to assess agreement, the 9 item was a strong tool due to its confident agreement.

Mikolaizak et al., (2019) outcomes measures in this study were rates of falls and injurious falls. Secondary measures included quality of life over 12 months, hospitalisation, emergency department presentation and ambulance re-attendance. No significant differences were found.

Snooks et al., (2017) SAFER2 trial had subsequent emergency contacts or death were the primary outcome measures. This study included a wide range of secondary outcome measures that were measured at 1- and 6-month timelines. These measures were: self-reported further falls, fractures, length of hospital stay, quality of life, conveyance rates, falls referral rate and physiological observations such as respiratory rate and pulse. Only satisfaction rates and 999 call rate after 6 months were the significant measures.

Quatman et al., (2018) initiative measured fall calls, number of fall related conveyance to hospital and lift assists. Secondary measures were comparison of primary outcome measures in a population adjusted sample per month by phase. Lift assists were the only measure nonsignificant.

4. Further areas requiring evaluation to

Zozula et al., (2016) explicitly repeatedly stated 'no high-quality evidence was found'. It is also stated further research is needed to address number of injurious falls with fall prevention programmes.

enhance  
practice

Due to the variety of high- and low-quality evidence in Snooks et al., (2017) review, an increase of well conducted research is strongly needed. Understanding implementation as well as optimising analysis of data and exploring differences at baseline and after intervention.

Infinger et al., (2019) is the first study to implement this assessment tool, therefore further trials are needed to decipher its appropriateness for pre-hospital setting.

More research is needed to understand and identify predictors of adherence and non-adherence of health prevention programmes (Mikolaizak et al., 2016).

Further studies are needed to understand and implement the effectiveness of community paramedicine fall prevention (Quatman et al., 2018). This study highlighted high quality evidence is limited and as the data was inconsistently collected.