There is currently no clear evidence for the efficacy of major trauma centres in caring for adult patients injured by a ground-level fall. Further studies at lower risk of bias and studies conducted outwith the USA are required.

### Abstract 797 DIURNAL TRENDS IN MEDICAL STUDENT FIRST RESPONDER AVAILABILITY AND DEMAND

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**Aims/Objectives/Background**
Medical Student First Responders (MSFRs) are volunteer Community First Responders, who respond to emergency calls and can provide life-saving interventions before the arrival of an ambulance. There is no data on diurnal trends in ambulance service demand for MSFRs, who do not typically work fixed shift patterns and therefore at present do not know when the most beneficial time of day to volunteer is. Thus, the aim of this service evaluation was to assess when demand for MSFRs is highest in central Oxfordshire and assess if MSFRs were available to respond at those times.

**Methods/Design**
All MSFRs shifts on a single Dynamic Response Vehicle between 1 October to 31 December 2020 were included. The MSFRs operated exclusively in central Oxfordshire (post codes OX1 – OX4) on behalf of South Central Ambulance Service. MSFR dispatch probability was calculated by comparing total time on duty (for each hour between 9 am – 1 am) with the respective number of incidents attended within that hour, and then plotted as a 3-point moving average against time. No patient data was collected.

**Results/Conclusions**
163 ‘on duty’ hours and 58 incidents (44% ‘Category 1’ responses, 88% MSFR first on scene) were included. There were clear diurnal trends in MSFR availability and demand (Abstract 797 figure 1). The probability of MSFR dispatch was highest at 56.3% between 6–7 pm; however, MSFRs were most likely to be available later in the day between 9–10 pm.

These findings suggest that the majority of MSFRs shifts occur at times when demand is relatively low. MSFRs are a highly flexible resource and should be encouraged to volunteer earlier in the day, as this would significantly improve coverage during the late afternoon when demand is greatest.