**Abstract Submission – 30 minute**

**Title**

The impact of mobile Xray on managing frail, elderly patients in residential aged care facilities

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**Background**

The number of elderly Australians living in residential aged care facilities (RACFs) will continue to grow. Digital technology makes portable plain Xray possible. This may assist in the investigation and treatment of frail elderly patients without the need for transfer to hospitals or community facilities.

**Aims**

This paper will:

1. Review the international literature on mobile Xray and;
2. Describe the outcomes of the first year of the introduction of a mobile Xray service in Melbourne, Australia

**Method**

A descriptive study using a before-and-after cohort approach. Activity for the first year of operation was collected and described. At the end of the first year of operation, the top 30 RACF users of mobile Xray were identified. A hospital Department of Radiology database was examined to find all plain X-rays performed on any patient presenting from the same 30 RACFs for the 1 year before commencement of the service and for the 1 year period after the commencement. Attendances were compared.

**Results**

The MXS delivered 1532 service attendances to 109 different RACFs. The mean age of patients was 86 years (range 16–107 years). Most patients (*n* = 634; 41.4%) were bed or wheelchair bound, followed by those who required assistance to ambulate (*n* = 457; 29.8%). The most common X-ray examinations performed were chest, hip and pelvis, spine and abdomen. There were 919 service attendances to the top 30 RACFs using the service (60.0% of all attendances). There was an 11.5% reduction in ED presentations requiring plain X-ray in the year following the commencement of the MXS (95% confidence interval 0.62–3.98; *P* = 0.019).

**Conclusion**

The present study suggests a reduction in hospital ED attendances for high users of the MXS. This has benefits for hospitals, patients and nursing homes. It also allows the extension of general practice management and other programs designed to treat patients in their RACFs. Special rebates for home-based radiology service provision should be considered.