

## **Examining Clinical Utility of Imaging for Inpatient Palliative Care**

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### **Abstract**

**Background:** Medicine in the final months of life is increasingly interventional, both in the manner by which life may be prolonged and symptoms may be reduced. Radiology is frequently utilized to provide diagnostic clarity and improve symptom control. As with any intervention, examining the benefit and potential harms of a procedure is required to establish its role in ongoing clinical care.

**Methods:** This retrospective cohort study involved patients admitted to an inpatient palliative care unit between October 2013 and September 2014. Data were collected using clinical databases manually searched by the researchers.

**Results:** Of 388 admissions, there were a total of 154 imaging events completed in 85 patients. Patients who had imaging performed had longer mean length of stays, more likely to be discharged home, and male. Very few imaging events (4%) occurred in the 3 days prior to death and none on the day of death. In total, 43% of imaging confirmed the clinical suspicion and management changed 42% of times. Limbs X-rays and computed tomography brain had low rates of confirming clinical suspicion (21% and 17%) and changing management (21% and 33%). There were a total of 7 complications resulting from imaging, the majority due to interventional procedures.

**Conclusion:** The use of imaging in inpatient palliative care seems to be of substantive utility, prompting alterations in management in >40% of instances. The majority of imaging occurred prior to the terminal phase of the disease and with few complications.

### **Strengths**

Use of imaging appears to be increasing in palliative care, but, there is a paucity of literature available to guide appropriate use: this is the largest study to date. No conflicts of interests or industry funding.

### **Weaknesses**

Retrospective study from a single centre in rural Australia, with only 2 imaging modalities available on-site. Researchers were unable to capture adverse events which may have led to imaging being ordered and they only able to report severe adverse complications attributed to the intervention.

### **Relevance to palliative care**

Imaging is ordered for inpatients on palliative care units, and perhaps more frequently when services are readily available in-house. It is necessary; therefore, for practitioners to consider the burden to the patient as well how the information will be used, once it has been obtained. While palliative care specialists will usually discuss this with the patients to identify the pros and cons, but this may not be the case with other disciplines caring for palliative patients.

