

JOINT EVENT ON

20<sup>th</sup> Euro-Global Summit on**Cancer Therapy & Radiation Oncology**  
and**2<sup>nd</sup> International Oncologist & Diagnostics Conference**

August 28-30, 2017 Brussels, Belgium

**Out of hours imaging in suspected metastatic spinal cord compression (MSCC) - are the right patients getting the appropriate imaging?****Thomas Rogers, Mariyah Selmi, Melosa D'souza and Navin Khanna**  
Pennine Acute Hospitals NHS Trust, UK

**Background:** Metastatic spinal cord compression occurs when a tumour causes cord compression after spreading directly to the spine or from collapse of the tumour-infiltrated vertebra. This often presents as a neurological emergency with irreversible damage occurring within hours or days. Rapid identification and a neurosurgical referral are crucial to prevent this damage. UK NICE guidelines recommend that adults with non-specific spinal pain with a cancer diagnosis or suspicious spinal pain without a cancer diagnosis should be investigated with MRI as an emergency – within 24 hours if features of MSCC are present. During evenings and weekends, when image acquisition and radiology on call services are limited, resources must be used efficiently to ensure that MSCC can be identified within this timeframe.

**Method:** A retrospective trust wide audit was carried out at the Pennine Acute Hospitals Trust to determine which out of hours MRI referrals for suspected MSCC were appropriate according to national guidelines. MRI whole spines conducted between 5-9 pm on weekdays and 8 am-9 pm on weekends from 2012 to 2016 inclusive were analysed. Requests were categorised as appropriate, inappropriate or insufficient clinical details.

**Results:** Out of a total of 276 MRI scans, 215 were 24 hour urgent MSCC requests. 67% of the requests were appropriate, 15% were inappropriate and 18% of the referrals contained insufficient clinical details to justify the request. Only 3% of all the out of hours scans showed an MSCC that required urgent neurosurgical assessment. 9.7% showed spinal cord compression secondary to alternative pathology such disc prolapse. Only 1.4% of the inappropriate and insufficient referrals displayed MSCC. The necessity of an urgent scan was difficult to determine in some referrals as there was no mention of any neurological symptoms.

**Discussion:** There are a large number of unnecessary MRIs conducted which may reduce the availability of out of hours scans for urgent scans meeting MSCC 24 hour scanning criteria. To prevent this, we have developed a proforma with stricter vetting criteria in line with NICE guidelines.

**Biography**

Thomas Rogers gained Master of Research (MRes) in Clinical Sciences at University of Liverpool in 2014 and Bachelor of Medicine and Surgery (MBChB) at University of Liverpool in 2015. Currently, he is a foundation year-2 Doctor at the Pennine Acute Hospitals NHS Trust, Greater Manchester, UK.

t.rogers@doctors.org.uk

**Notes:**