Introduction The aim of this study was to assess the role of pre-angiographic imaging and the technical and clinical success of angiographic embolisation in the management of patients with acute non-variceal upper gastrointestinal (UGI) and lower gastrointestinal (LGI) bleeding.

Methods We retrospectively assessed patients who had transcatheter angiography for acute gastrointestinal bleeding in a tertiary referral centre between 2006 and 2009. 36 patients were identified (mean age 77 years), of which 19 had LGI bleeding and 17 UGI bleeding. Data of clinical, endoscopic, angiographic and surgical interventions were collected. Clinical outcomes were recorded including: technical success, clinical success (no re-bleeding within 30 days), complications and mortality.

Results 11 of the 36 patients had CT evaluation prior to catheter angiography. 5 of the 6 patients shown to have an active GI haemorrhage on CT had bleeding seen on angiography. All of the patients not demonstrating bleeding on CT were angiographic negative.

All patients with UGI bleeding had upper GI endoscopy prior to angiography. 9 patients underwent endoscopic treatment for UGI bleeding. 3 patients in this group were eventually embolised. 8 patients did not have any endoscopic treatment and of these, 6 were embolised. 45% of patients having angiography within 24 h of endoscopy had active bleeding on angiography; as opposed to 17% of those waiting more than 24 h.

Embolisation was performed in 50% patients (18 of 36; 9 UGI, 9 LGI) with a technical success of 95%. 12 patients had bleeding on angiography and were embolised. 6 patients underwent empirical embolisation. 5 patients required repeat angiography (1 technical failure, 4 clinical failures). Clinical success was 78% (7/9) in those with UGI haemorrhage and 67% (6/9) in those with LGI haemorrhage.

The 30 day mortality in non-embolised group was 39% and the embolised group was 21%. Ischaemic complications occurred in 16% (3/18) of patients, all of whom were treated operatively.

Conclusion Contrast extravasation is more likely to be demonstrated via transcatheter angiography if already seen on CT angiography. In those with UGI bleeding, angiography is more likely to demonstrate the haemorrhage if the time between endoscopy and angiography is less than 24 h. Our experience supports the early use of angiographic embolisation when gastrointestinal bleeding is not controlled at endoscopy.

Competing interests None.

Keywords CT angiography, gastrointestinal haemorrhage, transcatheter embolisation.