Background Pulmonary hypertension (PH) in pregnancy is associated with a high risk of maternal death (30%–50%). Despite risks, patients may actively plan pregnancy. Patients may also present whilst pregnant with previously undiagnosed PH.
Methods Retrospective review of patients presenting during pregnancy at a PH centre between 2001 and 2017.
Results A total of 27 patients were identified over a 16 year period from 2001 till April 2017. Patients were classified as WHO group 1 (n=25) or group 4 (n=2). Eight of the 27 patients had 2 or more pregnancies and in total 36 pregnancies were managed during the study period. Of the 36 pregnancies, 20 resulted in live birth, 9 ended with medical termination and 7 resulted in a miscarriage. All patients were supervised by a multi-professional team (PH physicians, anaesthetists, obstetricians, intensivists and nurse specialists). 19 deliveries were by Caesarean section with 1 vaginal delivery and planned between 32 to 36 weeks; the earliest live birth was at 25+5 weeks post cardiorespiratory arrest at 25 weeks. Patients underwent epidural or combined spinal/epidural regional anaesthesia and were monitored peri-delivery in an intensive care environment with arterial and central venous access. Of 36 pregnancies, 2 women died within 6 months of delivery (3 and 28 days post-delivery) and none during pregnancy. Patients were followed until January 2017; mean follow up 64 months (range 0–174 months) after last pregnancy. The 5 year survival for all patients (n=27) from date of last pregnancy with PH was 92%.
Conclusion Mortality of PH in pregnancy in a setting of experienced and coordinated care is less than historical series but remains significant. Counselling women with PH of these risks remains an essential part of disease management. In the event of pregnancy, patients should be managed by a multiprofessional team with peripartum care in an intensive care environment.

P181 PULMONARY ARTERIOVENOUS MALFORMATIONS, HEREDITARY HAEMORRHAGIC TELANGIECTASIA AND IRON TREATMENTS

[1]CL Shovlin, [2]EJ Boother, [2]CH Fung, [3]KB Bamford, [1]DM Layton, [3]JE Jackson, [3]S Brownlow. *[1]Imperial College London, London, UK; [2]Imperial College School of Medicine, London, UK; [3]Imperial College Healthcare NHS Trust, London, UK*

10.1136/thoraxjnl-2017-210983.323

Introduction Patients with pulmonary arteriovenous malformations (PAVMs) usually have underlying hereditary haemorrhagic telangiectasia (HHT), when iron deficiency often develops due to recurrent nasal and gastrointestinal haemorrhage. Iron deficient PAVM/HHT patients have more ischaemic strokes and venous thromboemboli. However, recent UK data indicate that cerebral abscesse are more common in PAVM patients using intravenous iron and/or with high normal transferrin saturation index.[1] Furthermore,~1 in 20 HHT patients report that iron treatments exacerbate their nosebleeds.[2] The goal of this study was to evaluate clinical patterns of iron treatments in patients with PAVMs and HHT.
Methods Iron, red cell and microbiology indices were evaluated as part of routine clinic assessments of patients with PAVMs and/or HHT. With ethical approval, all available patient datasets between 04/2015 and 07/2017 were recorded, categorised according to patient status, and analysed using STATA IC v13 (Statacorp, Texas).
Results At first assessment, 72 patients were using oral iron alone, and 21 were using intravenous iron +/-iron tablets. As noted in figure 1, intravenous iron users had lower haemoglobin concentrations than oral iron users, despite higher serum ferritin. None of the 16 selected PAVM patients evaluated had positive blood cultures in the clinic, or developed positive cultures following *ex vivo* iron treatments. Three of seven selected patients had low serum haptoglobin (0.32–0.36 g/L, reference range 0.5–2.4 g/L) potentially indicative of shortened intravascular red cell survival. 31 patients were commenced on oral or intravenous iron, or recommended a dose increase, but 56 were advised dose reduction. Post assessment, daily iron dosages tended to be lower (elemental iron content 14–130, median 35 mg/day) than at first assessment (elemental iron content 14–260, median 65 mg/day, p=0.08). In two patients, external clinicians advised that iron dose reduction led to at least temporary cessation of blood transfusion requirements. Reported nosebleed improvements were common, though may have also been due to intervening treatment of PAVMs.[2]
Conclusions Further study on the clinical efficacy and sequelae of iron treatments, and a more personalised approach to therapy, appears warranted in this patient group.

REFERENCES

1. Boother, *et al*. *Clin Infect Dis* 2017. doi:10.1093/cid/cix373
2. Shovlin, *et al*. *ERJ Open Res* 2016;2(2).00035–2016.

P182 THE APPROPRIATENESS OF THE USAGE OF CT PULMONARY ANGIOGRAPHY FOR THE DIAGNOSIS OF PULMONARY EMBOLISM; EVALUATION OF THE CURRENT PRACTICE AT EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST AND REVIEW OF SIMILAR STUDIES

[1]A Vrettos, [2]M Prasinou, [1]R Basit, [1]D Malamis. *[1]East Kent Hospitals University NHS Foundation Trust, Canterbury, UK; [2]University of Cambridge School of Clinical Medicine, Cambridge, UK*

10.1136/thoraxjnl-2017-210983.324

Background Computed tomography of pulmonary angiogram (CTPA) is widely used for the diagnosis of patients with possible pulmonary embolism (PE). We sought to audit the positive yield of CTPAs performed in our Trust over a total of two months and compare our practice against accepted standards. The Royal College of Radiologist (UK) suggests 15.4%–37.4% as an acceptable CTPA positive rate. Studies auditing clinical practice in UK and non-UK hospitals were also reviewed.
Methods The Results of a total of 236 CTPAs from Queen Elizabeth the Queen Mother Hospital in Margate and the William Harvey Hospital in Ashford were retrospectively reviewed. Patients' baseline and clinical details as well d-dimer levels were retrospectively collected. Wells score was calculated for each patient based on the clinical notes. The documentation of pre-test probability score in the request forms was also assessed.
Results The reported findings for the 236 CTPA scans were PE in 34 (14%) scans, significant pathology was detected in 53 (22%) scans, an alternative diagnosis was made in 54 (23%) and no abnormality was detected in 88 (37%) scans. Only 12 (5%) cases had clinical probability scores documented. The majority (68%) of patients with high Wells score had CTPA done without d-dimers testing. Our review of the