

Obstetric admissions to intensive care in a district general hospital: a retrospective five-year review

L. Vickers¹, R. Jacobs², S. Pai³

¹ Anaesthetic Specialty Registrar, University Hospitals Sussex NHS Foundation Trust, ² Anaesthetic Specialty Registrar, University Hospitals Sussex NHS Foundation Trust, ³ Anaesthetic Consultant and Obstetric Anaesthesia Lead, Conquest Hospital, East Sussex Healthcare NHS Trust

Introduction

- Increasing comorbid parturients due to prevalence of obesity and higher maternal age
- Rise in maternal mortality from 2017-2019 to 2018-2020 (MBRRACE)¹
- As most parturients are young & healthy, they are managed in district general hospitals (DGH) without specialist obstetric intensive care (ICU) facilities
- Unanticipated deterioration can occur quickly and require ICU
- Current incidence of 2.4 ICU admissions per 1000 pregnancies (ICNARC data)
- Joint guidelines have been published and make recommendations for care of obstetric patients on ICU²

Methods

- Standards devised using 2018 Enhanced Maternal Care guidelines
- Electronic notes of all pregnant or recently (<6/52) pregnant patients admitted to ICU 2017 – 2022 reviewed
- Review of pregnant or recently pregnant patients seen in ICU follow-up clinic
- Data collected:

Baseline demographics	Follow up care details
Timing of admission	Pregnancy status
Admission diagnosis	Length of ICU stay
Maximum level of care	Referral to tertiary centre after >48hrs level 3 care

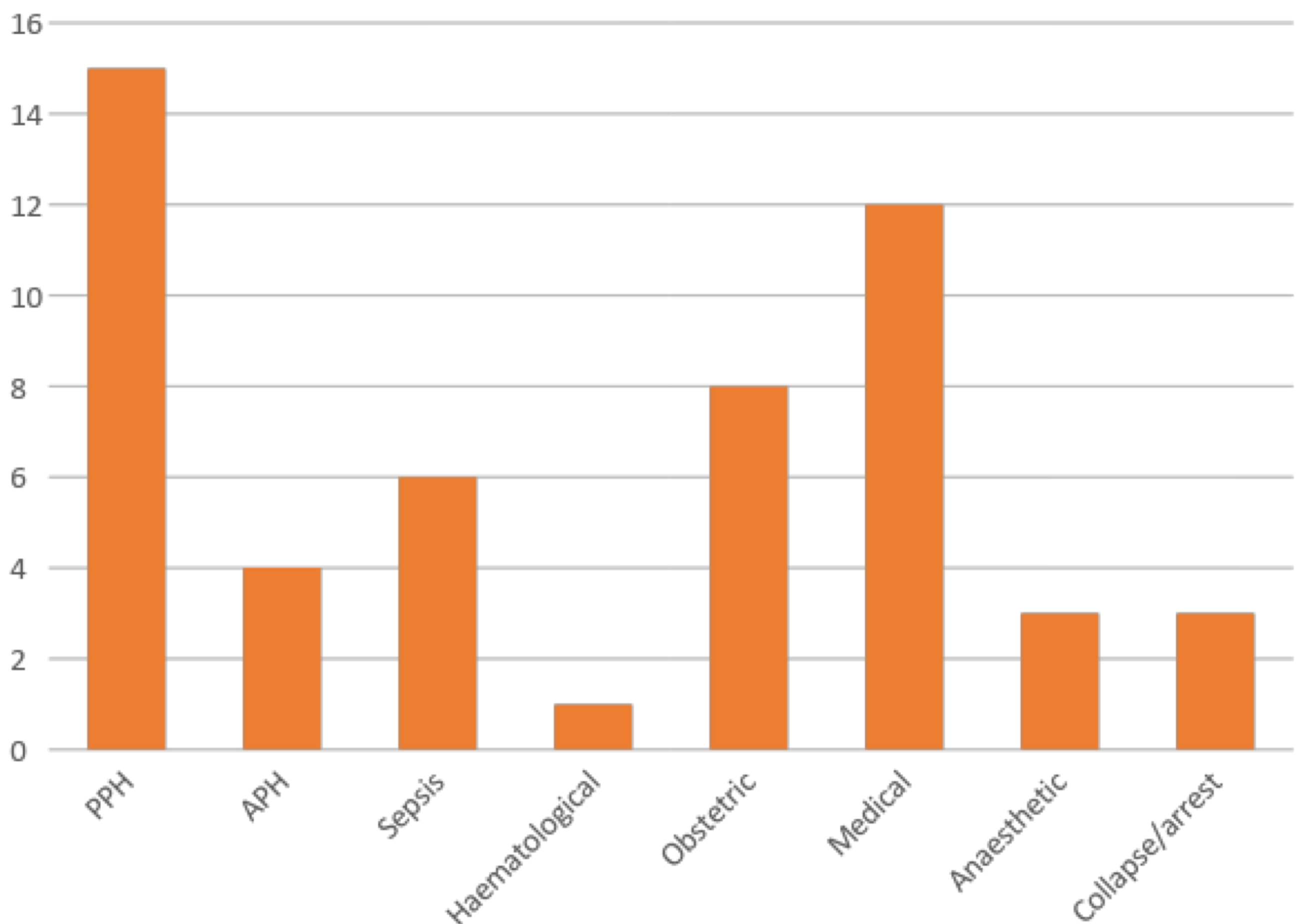
Results

- 5 year period: 52 admissions (2 readmissions) = 50 patients
- The majority of admissions were postnatal (33/50)
- Most common admission diagnosis: postpartum haemorrhage
- 28/52 out of hours admissions
- 16/52 admissions required level 3 care
- 15/50 patients offered follow-up in ICU clinic

References:

MBRRACE https://www.npeu.ox.ac.uk/assets/downloads/mbrrace-uk/reports/maternal-report-2022/MBRRACE-UK_Maternal_MAIN_Report_2022_v10.pdf
Care of the Critically Ill Woman in Childbirth; Enhanced Maternal Care, August 2018
<https://www.rcoa.ac.uk/sites/default/files/documents/2020-06/EMC-Guidelines2018.pdf>

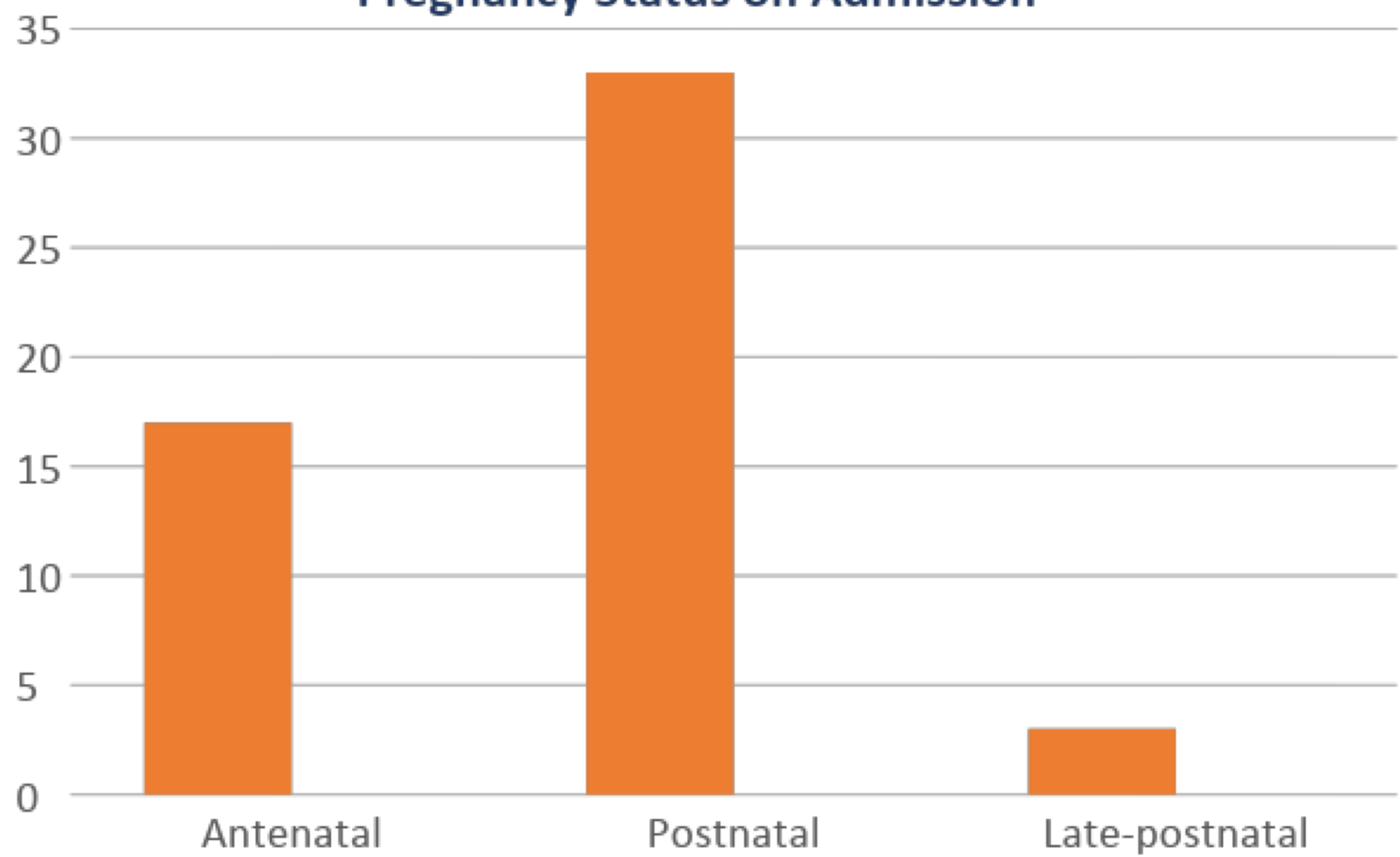
Admission Diagnosis



Baseline Demographics



Pregnancy Status on Admission



Review of Results & Discussion

- It is not uncommon for a DGH ICU to admit an obstetric patient
- In our sample population these patients were young with minimal comorbidities. Unanticipated deterioration can occur rapidly in these patients
- Major post partum haemorrhage was the most common indication for admission, highlighting the need for prompt recognition and management of haemorrhage
- 7/8 obstetric medical causes of admissions were for pre-eclampsia, highlighting the rapid deterioration that can occur in this condition
Medical conditions were the second-most common indication for admission: the majority of these were for COVID
- 50% of admissions were from 17:00-08:00 under the care of a trainee
31% of admissions during daytime hours under consultant supervision
19% of admissions during weekends
- Approximately one third of patients required level 3 care
11/16 patients on level 3 care for >48hrs were referred to a tertiary centre as per guidelines²
- In 2019, our ICU launched a new follow-up service. This was offered to 15 obstetric ICU patients post-discharge and accepted by 6 patients
Further action was taken for 4 patients, most commonly involving psychological support and obstetric debrief

A lack of specialised obstetric ICU services in our hospital necessitates increased awareness and education amongst healthcare professionals involved in the care of obstetric patients

We propose a specific obstetric ICU admissions proforma to standardise and improve care by facilitating multidisciplinary reviews, referral to a named obstetric-ICU lead and timely referral to a tertiary centre if required

We suggest that a joint follow-up service with obstetrics would benefit this population

