

Syntometrine Induced Hypertension Audit

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Background and Aims:

Hypertension is the most common medical disorder experienced in pregnancy. The main types of hypertensive disorders are gestational hypertension, chronic hypertension and pre-eclampsia. Regardless of cause, hypertension is classified according to severity (*figure 1*). Due to its association with acute complications such as stroke, the Royal College of Obstetricians and Gynaecologists recommend that all patients with severe hypertension are assessed and treated.

Severity	Systolic BP	Diastolic BP
Severe	≥160 mmHg	≥110 mmHg
Moderate	≥140 mmHg	≥90 mmHg

Figure 1

Ergometrine is a uterotonic drug which is commonly used in conjunction with synthetic oxytocin (Syntometrine) in the active management of the third stage of labour. Ergometrine is a vasoactive drug and is recognised to cause hypertension. Due to this, it is contraindicated in patients with known hypertension.

A cluster of cases of severe hypertension were identified in patients who received Syntometrine during elective Caesarean section. Our aim was to determine whether this was an ongoing issue, and if so, to identify any potential cause.

Method:

All patients receiving Syntometrine during elective C-section were audited from 1st July to 24th July 2020. Data was collected using a questionnaire completed by the recovering midwife. Badgernet was used to perform a retrospective review of case notes from 18th May to 30th June 2020 in order to identify those patients in the original cluster. Only those with severe hypertension were included retrospectively.

Results:

23 patients were included in the prospective audit.
Mean age = 33.6.
Mean BMI = 35.2.
None of the patients had a history of hypertension.

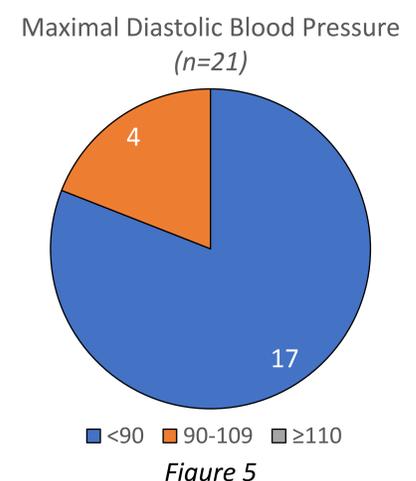
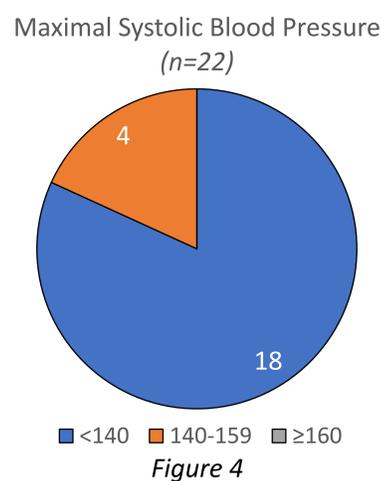
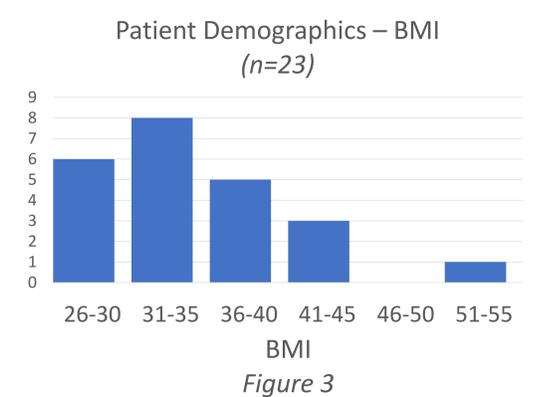
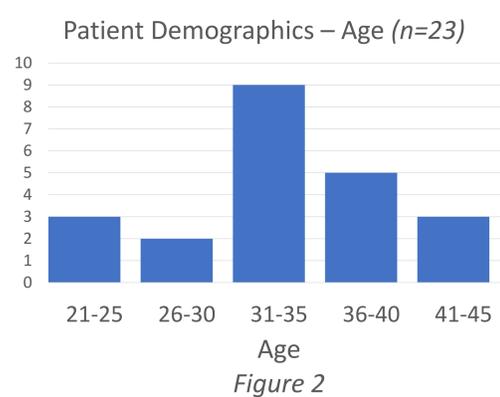
The maximal systolic blood pressure was 144 mmHg (n = 22) and the maximal diastolic blood pressure was 98 mmHg (n = 21).

Seven patients met criteria for moderate hypertension. The breakdown of attainment of these criteria can be seen in *figure 6*. No patients had severe hypertension, and no patients required antihypertensives.

Eighty-eight elective C-sections took place between 18th May to 30th June 2020. Two patients met criteria for severe hypertension. One patient required treatment with antihypertensive agents and was transferred to high dependency. Both patients had attended antenatal clinics and had normal antenatal blood pressures documented.

Discussion:

No further cases of severe post-natal hypertension were identified in patients receiving Syntometrine during elective C-section. Although numbers were small, this does not appear to be an ongoing issue. No standard tool for recording rare events was available in the department. At least one case associated with the cluster was missed and could no longer be identified. Recording of such events could be improved by implementing a standard governance tool – we recommend using the M&M reporting tool available locally via the internal internet (*figure 7*)



Moderate Hypertension	No. patients
Systolic ≥140 mmHg	3
Diastolic ≥90 mmHg	3
Systolic ≥140 mmHg AND Diastolic ≥90 mmHg	1

Figure 6

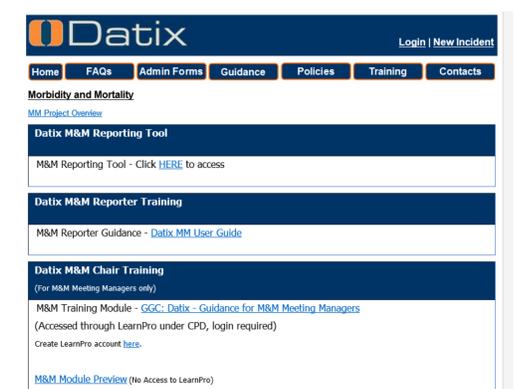


Figure 7