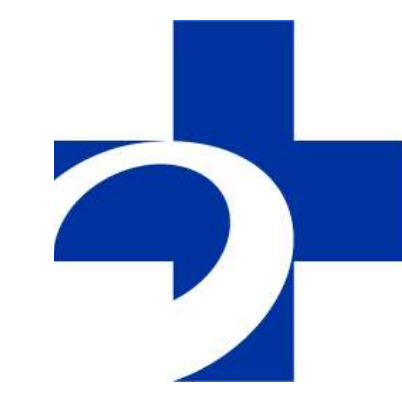


EP16.04 Severe Maternal Hypertension: Time is Ticking, Treatment Must Rush - A Quality Initiative



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INTRODUCTION

- Hypertensive disorders of pregnancy (HDP) are an important cause of maternal and fetal morbidity and mortality¹
- HDP complicate up to 10% of North American pregnancies²
- Severe hypertension (sHTN) is defined as 2 blood pressure values with a systolic blood pressure (SBP) ≥ 160 mmHg or diastolic blood pressure (DBP) ≥ 110 mmHg taken 15 minutes apart in the same arm³

The Society of Obstetricians and Gynaecologists of Canada (SOGC) **recommends** that if sHTN occurs, **treatment should be started as soon as possible, and preferably within 60 minutes to decrease maternal morbidity.**⁴

At The Ottawa Hospital (TOH), there is no clear directive on the timely administration of antihypertensive medications for the management of sHTN in pregnancy or postpartum.

AIM

- Identify the time to treatment (TTT) in minutes from initial presentation to medication administration in patients with sHTN at TOH Obstetric Triage.
- Describe causes for delay in care by performing a root-cause analysis (RCA) identifying opportunities to improve TTT.

METHODS

- Retrospective chart review of obstetric medical records from January to June 2022
- Inclusion:** any patient ≥ 20 weeks gestational age (GA) to < 6 weeks postpartum with confirmed sHTN
- Exclusion:** any cases where the BP was below 160/110 on repeat 15 min later or less
- Primary outcomes** included TTT in minutes and time-to-target BP ($< 160/110$ mmHg)
- Root-cause analysis** (RCA) was performed when TTT exceeded 60 min

RESULTS & DISCUSSION

Main complications:

- 44% preeclampsia
- 19% gestational HTN
- 16% chronic HTN
- 9% chronic HTN and superimposed preeclampsia

Patients with sHTN (N=240)

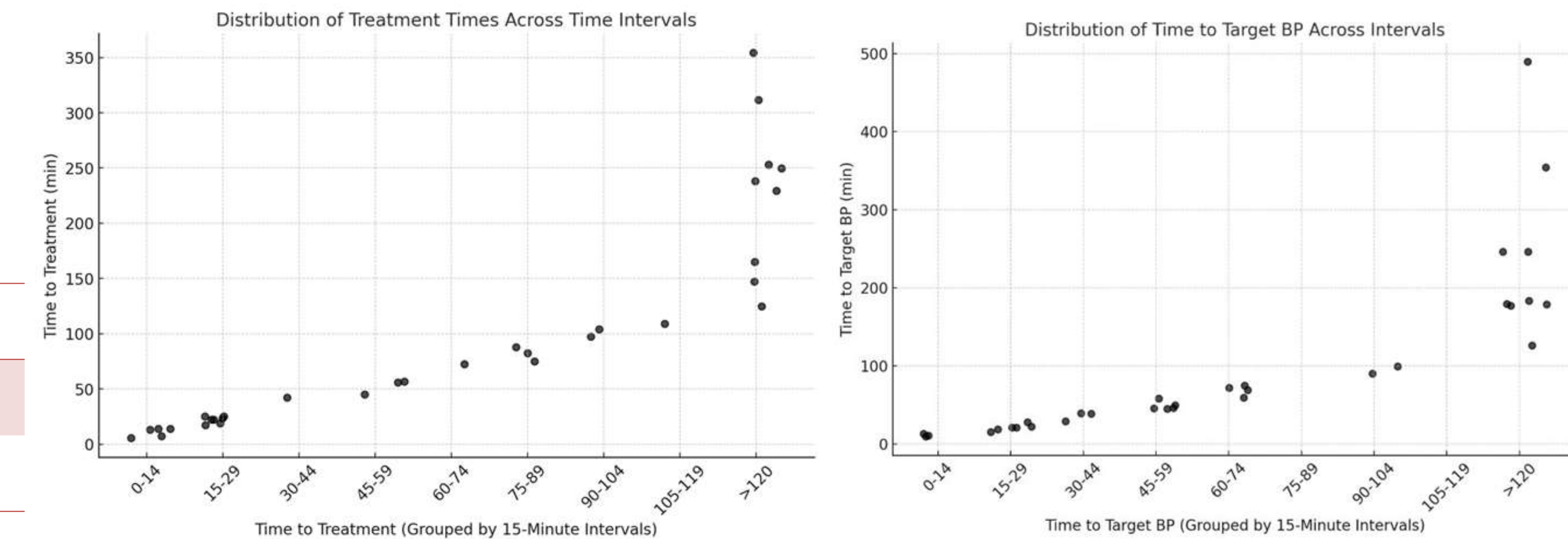
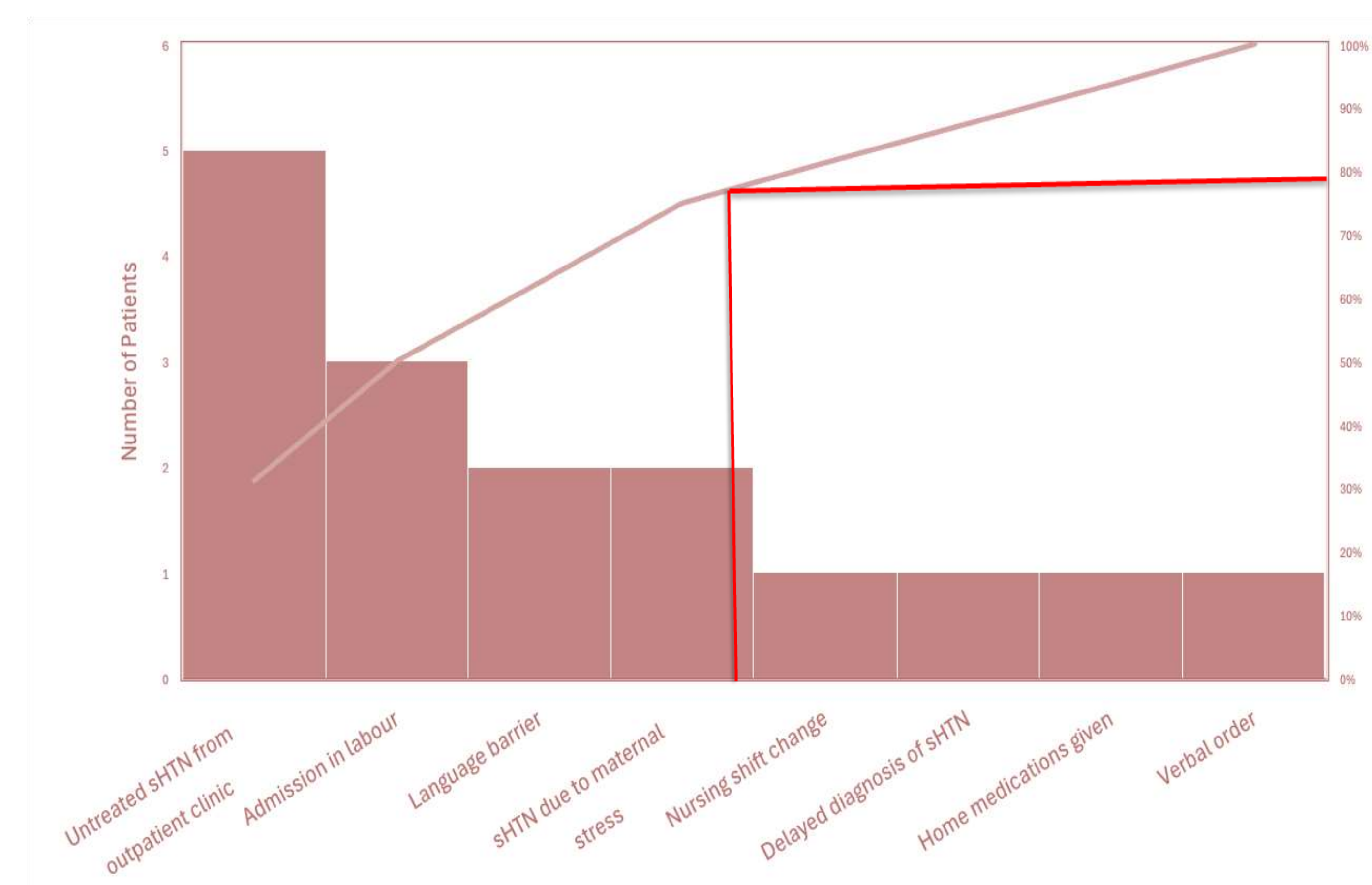
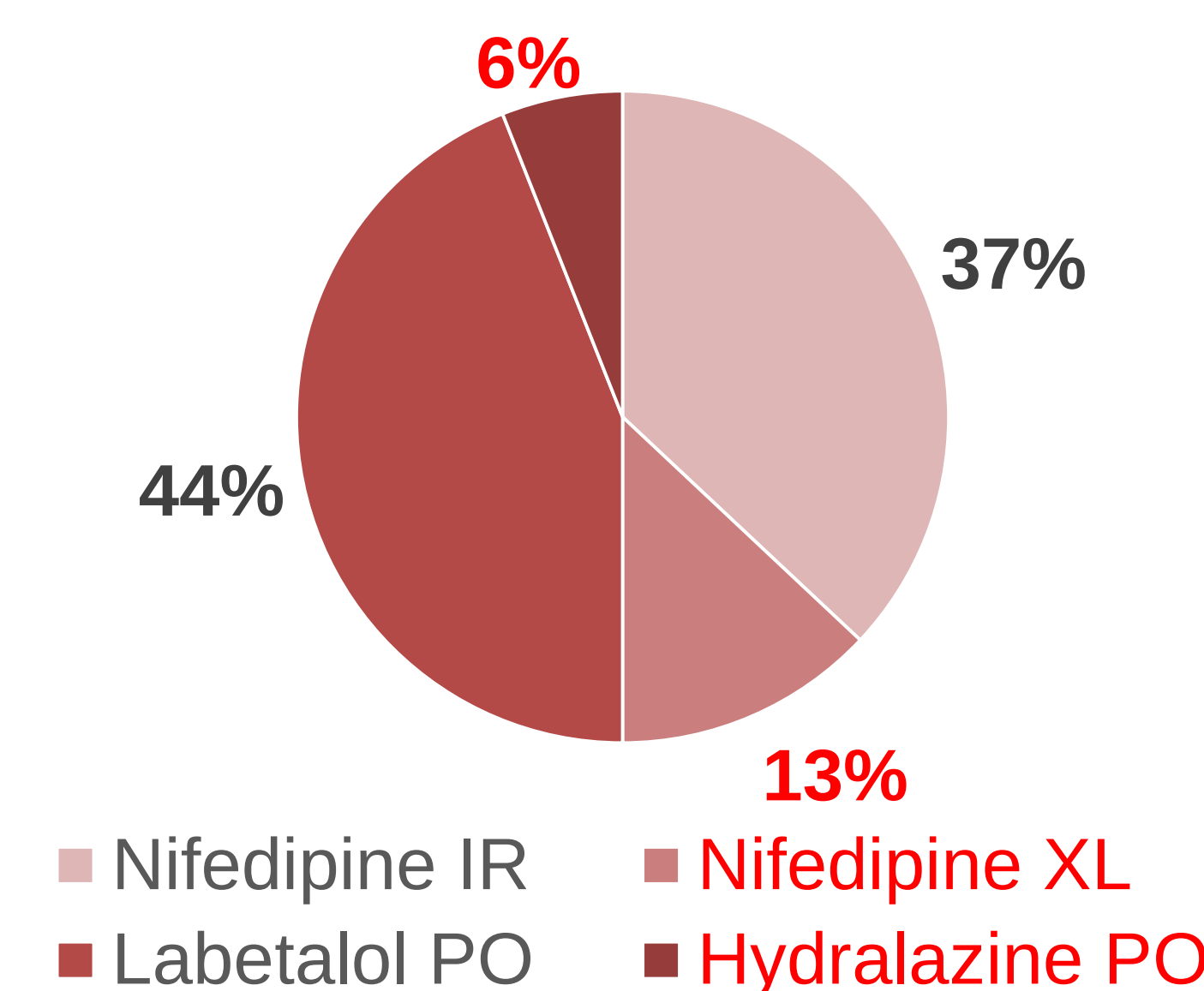
Excluded (N=208)

- sHTN developed during admission (N=103)
- Isolated BP reading in severe range or < 15 min apart (N=105)

Included (N=32)

- 81.25% (N=26) antepartum
- 18.75% (N=6) postpartum

Mean presenting BP	Mean $\pm$ SD
Initial systolic BP	168 $\pm$ 11.6
Initial diastolic BP	104 $\pm$ 11.8



CONCLUSION

- Gaps in timely management of sHTN in obstetric patients were identified. Only 50% of patients received antihypertensives within 60 min and 56% achieved target BP within 1h. Patients with pre-existing hypertension experienced longer times to target BP compared to those without a prior diagnosis.
- Main factor identified by RCA: Transitions between care settings, e.g. from outpatient clinics to obstetric triage.
- Our results allowed us to propose strategies to improve TTT and achieve the standard of care. **We proposed that nifedipine IR and labetalol tablets be readily available in outpatient clinics to reduce treatment delays of sHTN.**
- Future improvements at our institution may include educational initiatives and the development of standardized treatment protocols including nursing-led treatment protocols of sHTN.

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