AIM FAQ TOPIC

Treatment for Acute-onset Severe Hypertension during Pregnancy and the Postpartum period

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Source Document

ACOG Committee Opinion 623 (Feb 2015) is the source for the guidelines

Acute onset, severe hypertension that is persistent for 15minutes or more is considered a hypertensive emergency

- Can occur during pregnancy or postpartum
- Either Systolic ≥160 or Diastolic ≥110
- Can be either new onset (typically Preeclampsia) or in women with chronic hypertension who are developing superimposed preeclampsia with acutely worsening, difficult to control, severe hypertension

If severe BP elevations persist for 15 minutes or more, administer labetalol…

- The 15 minutes is the definition of a hypertensive emergency that needs immediate treatment NOT the definition of preeclampsia which in other guidelines calls for elevated BPs measured 4 hours apart
- It is fair to repeat the BP measurement to ensure that it was not in error (but this is not an invitation to place the women in a non-standard position for BP measurement such as supine on the left side and measuring BP using the upper arm!)

Two thirds of the preeclampsia deaths in the most recent UK Confidential Enquiries resulted from stroke. Identical findings were noted in the recent California review of maternal deaths. It should be noted that very few women die from seizures.

- Strokes can occur in women with acute-onset hypertension with systolic pressures in the 160's and diastolic pressures in the 110's
- Treatment of acute-onset severe hypertension is an emergency and demands immediate response. We should aim for "as soon as possible", ideally by 30 minutes and not more than 60 minutes. Hospitals that address the systems issues around immediate treatment have been able to achieve this goal.
- Treatment of acute-onset severe hypertension is an emergency and should take precedence over starting Magnesium Sulfate.
- The emergency began with the first measurement of severe hypertension and that should be used as the starting point for the timeline. Calls to the physician and preparation of the medication can be started while waiting for the confirmatory BP measurement.

Is there worry about fetal effects of treating a severe range BP?

- Fetal responses to sudden hypotension are documented but occur more commonly in mothers receiving epidural anesthesia.
- In the recent CMQCC California Preeclampsia Collaborative, among mothers being treated for acute-onset sever hypertension, <1% were associated with significant changes in the fetal heart rate pattern in the hour after treatment (and may have been related to other factors such as the preeclampsia)
- Severe Hypertension is an emergency and the mother needs emergent treatment.

Are manual BP measurements required/ recommended with blood pressures ≥140/90 or ≥160/110?

- Manual BP measurement is the "gold standard" and is encouraged with BP > 140/90 and recommended with severe range pressures to improve accuracy.

- At the very least, if a hospital chooses to use the automated BP route, they should check it against a manual BP device to make sure that it is within +- 5 mmHg. If it is not, a manual BP device is recommended.
- The most important factor is being consistent: same position, same arm and right sized cuff.

What about BP measurements that vacillate between severe and nearly severe?

This is a case of parsing the words versus understanding the reasoning behind the guideline. Women with acute-onset severe hypertension can have strokes. Serial measurements of: 162/105; 158/104; 165/100; 159/109 shows persistence and risk and we recommend treatment.

What about a severe range BP followed in 15minutes by less concerning BP (145/95)?

This scenario does not require treatment BUT does indicate the need for frequent monitoring of BP.

What if in another hour, the BP rises again to severe range?

Here there may be choices: begin treatment or await another BP measurement to document persistent severe range (while preparing the medication). This judgment depends, among other factors, on how low the blood pressures were between the two severe range measurements.

What if the nurse does not take a confirmatory BP for 30-40 minutes and it is still severe?

Even if the second BP is not taken "within 15 minutes" and it remains in the severe range it is persistent, so treatment should commence immediately. A key educational point is that one severe range BP requires the initiation of frequent BP measurements.