Improving Discharge for Patients with Hypertension in Pregnancy

A Quality Improvement Initiative

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Background

Maternal hypertension encompasses:

- Pre-existing hypertension
- Pregnancy-induced hypertension
- Pre-eclampsia
- Eclampsia

Together, these affected 63.6 per 1,000 deliveries in Canada in 2010/11 (CIHI, 2011)


There are 3,000 deliveries
at St Michael's Hospital per year.
That's 190 affected women per year.

Follow-up is key

Delivery is not necessarily the cure.

Society of Obstetricians and Gynaecologists of Canada (SOGC) guidelines recommend:

132. Blood pressure should be measured during the time of peak postpartum blood pressure, at days 3 to 6 after delivery. (III-B)
133. Women with postpartum hypertension should be evaluated for preeclampsia (either arising de novo or worsening from the antenatal period). (II-2B)

Treatment continues postpartum

SOGC guidelines recommend:

132. Severe postpartum hypertension must be treated with antihypertensive therapy to keep systolic blood pressure < 160 mmHg and diastolic blood pressure < 110 mmHg. (Class I-A)
133. In women without comorbidities, antihypertensive therapy should be considered to treat non-severe postpartum hypertension to keep blood pressure < 140/90 mmHg. (III-L)

The care gap

We reviewed 858 charts of women who delivered at St Michael's Hospital from Sep-Dec 2016 and identified these care gaps:

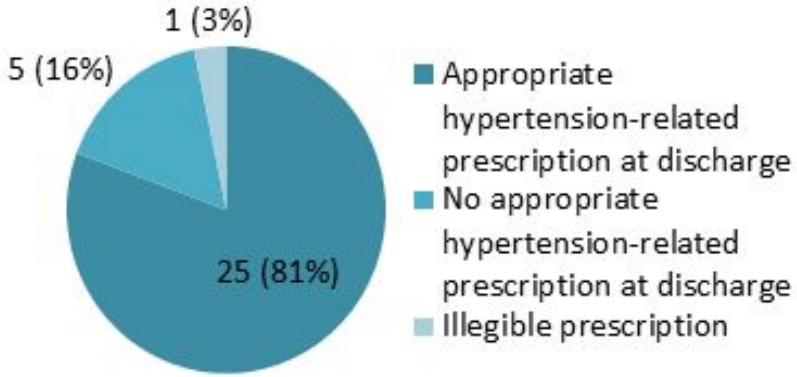
➔ **Flagging hypertension**
31 patients were identified as having hypertensive disorders in pregnancy

➔ **Discharge prescriptions**
6 patients (19%) were found to have inadequate hypertension-related discharge prescriptions

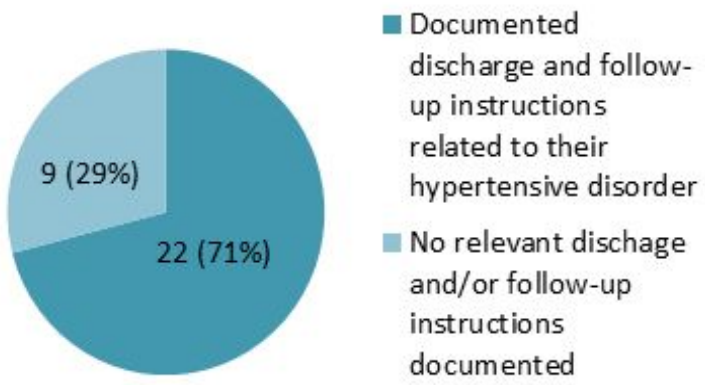
➔ **Follow-up care**
9 patients (29%) had no documented hypertension-related follow-up plan or discharge instructions

Results from review of 858 post-partum charts at St. Michael's Hospital

Discharge Prescriptions



Follow-up Plans



Our aim:

Increase the proportion of postpartum women with an identified hypertensive disorder of pregnancy being discharged with an appropriate hypertension-specific plan (prescription, follow-up, or both) by 90% by May 2017.

Our initiative

We designed a system designed to help flag patients with hypertension in pregnancy and remind providers to provide appropriate discharge prescriptions, arrange follow-up, and provide patient counselling.

Multi-faceted approach

Provide visual reminders on charts of affected patients

Use a checklist to remind providers to give discharge prescriptions and arrange follow-up

Give patient-oriented information sheets to improve patient awareness

Check: ☑

Hypertension in Pregnancy Quality Improvement Flowchart

For all patients, please assess:

☐ **Has your patient had hypertension during pregnancy?**

Any of the following criteria:

- Hypertension diagnosed in pregnancy
- Chronic (preexisting) hypertension
- On an anti-hypertensive medication at any point (in pregnancy/in hospital)
  - E.g.: labetalol, nifedipine (Adalat), magnesium sulfate, hydralazine, methyldopa, etc.
- Preeclampsia, eclampsia, or HELLP

↓ **YES**

☐ **Flag the patient's chart by putting a red clip on the front cover.**

For flagged patients, assess before discharge:

↓ **3 STEPS**

☐ **1** **Has the patient been given a prescription for an anti-hypertensive?** → **NO** **Notify MD**

↓

☐ **2** **Has the patient been given the "Information for Patients with High Blood Pressure in Pregnancy" handout?** → **NO** **Notify MD and provide a copy to patient**

↓

☐ **3** **Is there a clear, documented plan for follow-up to monitor blood pressure after discharge?** → **NO** **Notify MD**

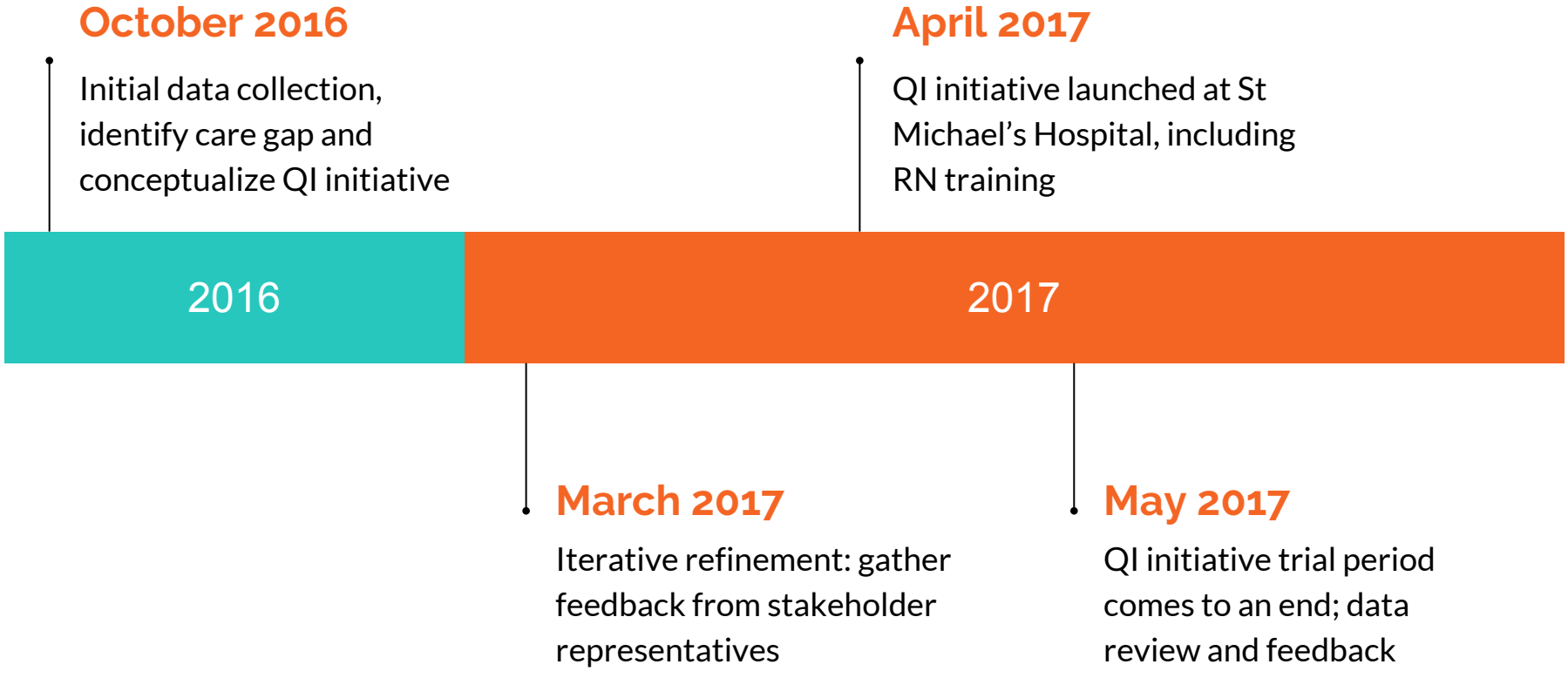
Information for Patients with High Blood Pressure in Pregnancy

You are being given this information sheet because you have had high blood pressure during your pregnancy.

Please do the following after leaving hospital:

1. If you have been prescribed medications for your blood pressure, please take these as prescribed.
2. Do not take anti-inflammatory pain medications (NSAIDS). This includes (but is not limited to): ibuprofen (Advil), naproxen (Aleve), and ketorolac (Toradol).
    - If you have questions about a specific medication, you can call Telehealth Ontario at 1-866-797-0000 (24/7).
3. See your family doctor within _____ to check your blood pressure.
4. See your obstetrician in 6 weeks for follow-up unless otherwise discussed.
5. Check your blood pressure at home or at a pharmacy at least once before your first doctor's appointment.
    - If it is above 160/110 (either number) please call your family doctor or obstetrician's office.
6. Seek medical attention immediately if you are feeling lightheaded/faint, have vision changes, upper abdominal pain, headache, nausea or vomiting, seizures, chest pain, shortness of breath or if you feel generally unwell or have any other urgent/emergent concerns.
7. If you have any further questions, contact your family doctor or obstetrician's office, or Telehealth Ontario at 1-866-797-0000 (24/7). If it is an emergency, you should call 911 or go to the nearest Emergency Department.

Rollout Timeline



Not quite according to plan

We quickly encountered numerous challenges to our initiative rollout:

- Visual chart flags/markers disappeared from the ward
- Information posters were taken down
- Checklists & info handouts were moved out of sight from clerical and nursing staff, then discarded, and therefore were not included in charts


Of 9 nurses interviewed at the end of the trial period, only 2 (22%) recalled hearing about this QI initiative.

Qualitative feedback

"New initiatives need to fit into our existing workflow"

RN

"Computer order sets are easier to remember to use and would help adoption"

RN

"All the nurses on [the postpartum ward] need to be informed for this to work"

RN

Qualitative feedback from postpartum nurses at St Michael's Hospital

Post-initiative data review

This slide is blank - because there's no data yet.
(Data will not be available until coded in July.)

Take home lessons

We may not have data to review, but still gained some key insights:

- Buy-in from all providers is important
- Wide dissemination of initiative components and goals is key
- Overcoming institutional inertia can be a significant challenge
- Design with consideration of existing workflow may mitigate this

Looking forward

- Generate buy-in with grand rounds
- Working closely with allied health from inception
- Improving uptake with a forcing function (Poka-Yoke)
- Back to the drawing board!
  - PDSA language: study - act!

Thank you

Thank-you to Dr. Frecker (Michael Garron Hospital), staff & nurses at St Michael's Hospital, and our course directors and assistants for guiding us through design and implementation of this QI initiative.

St. Michael's

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Inspiring Science.