Level 1
(Resuscitative)

Level 2
(Emergent)

Level 3
(Urgent)

Level 4
(Less Urgent)

Level 5
(Non-Urgent)

Triage

CAPWHN
October 23, 2014

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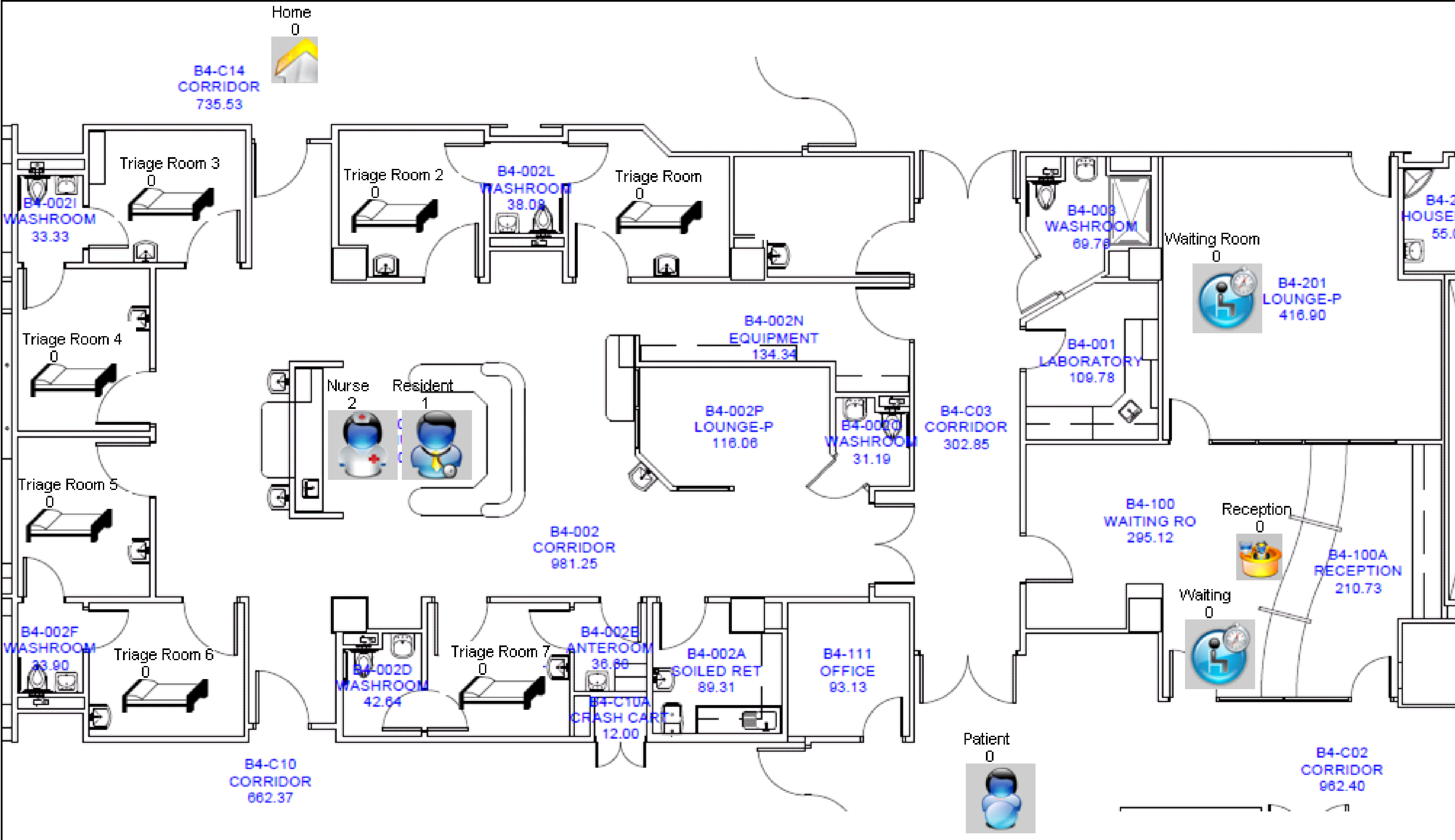
Objectives

- Review various conditions seen in Obstetrical Triage and appropriate interventions using a case-based approach.
- Describe the process of assigning acuity scores to women presenting to Triage (OTAS).
- Highlight patient safety, and flow as an integral part of care
- Describe critical thinking used by experienced Triage nurses and how this can be encouraged/supported.

Obstetrical Triage



Clinical Reasoning is....

- "processes by which nurses (and other clinicians) make their judgments, including generating alternatives, weighing them against the evidence and choosing the most appropriate intervention" (Tanner, 2006, Gierach & Evenson, 2010)

What is the number one cause of mistriage?

A. Using a 3-level scale rather than a 5-level scale in triage?
B. Using the wrong 5 level scale in triage?
C. Lack of education, triage nurse inexperience and empathy burnout?
    - *McNair, R. (2005), It Takes More than String to Fly a Kit: 5 level Acuity Scales are Effective, but Education, Clinical Expertise and Compassion are Essential*

Systematic approach

- Regardless of the acuity system, a “systematic approach is needed…mistriage does not happen with those who are very ill or injured, it happens with patients who do not seem to be very sick… (McNair, 2005)

Barriers to clinical decision making in triage

- Interruptions
- Lack of knowledge
- Time constraints
- Lack of experience
- Challenges in patient populations

Person-centred care

- "triage nurses are primarily concerned with urgent physical care rather than seeing the patient as an individual and collaborating in care…" (McBrien, 2008)

Mystery 101

- "The triage nurse must be the "detective" at the front door; it is not the patient's job to tell the nurse what is wrong but the nurse's job to find it out…." (McNair, 2005)

Triage decision making skills

- Cognitive Characteristics:

Statement	Strongly agree	Agree	Disagree	Strongly disagree
I work under pressure and remain organized				
If a patient arrests, I will know what to do				
I am someone my coworkers count on to make good decisions				
I am knowledgeable about clinical areas				
I can prioritize patient care and get the job done				

Level 1 (Resuscitative)
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Development of an Obstetrical Triage Acuity Scale

Canadian Triage Acuity Scale (CTAS)

Level
Level 1 (Resuscitative)
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- Canadian Emergency Department Triage and Acuity Scale (CTAS)
  - Introduced in 1999, revised 2008
  - Established reliability and validity
  - Triaging based primarily on patient's presenting complaint
- Recommendations for time-to-nurse and time-to-physician assessments based on acuity level

Canadian Triage Acuity Scale (CTAS)

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Presenting complaint	CTAS
Presenting fetal parts/cord prolapse	1
Vaginal bleeding, 3rd trimester (other than show)	1
Active labour (ctrx <2 min apart)	2
No fetal movement	2
Complex of HTN +/- h/a +/- edema +/- RUQ pain	2
Post-delivery (mother and child)	2
Possible leaking of amniotic fluid (>24 h)	3

Obstetrical Triage Acuity Scale (OTAS)

Western Schulich MEDICINE & DENTISTRY **OBCU Obstetrical Triage Acuity Scale (OTAS)** London Health Sciences Centre

OTAS	Level 1 (Resuscitative)	Level 2 (Emergent)	Level 3 (Urgent)	Level 4 (Less Urgent)	Level 5 (Non-Urgent)
Time to Physician	Immediate	$\leq$ 15 minutes	$\leq$ 30 minutes	$\leq$ 60 minutes	$\leq$ 120 minutes (2 hours)
Re-assessment	Continuous Nursing Care	Every 15 minutes	Every 15 minutes	Every 30 minutes	Every 60 minutes
Labour/Fluid	• Imminent birth	• Suspected preterm labour/PPROM < 37 weeks	• Signs of active labour > 37 weeks	• Signs of early labour/PROM > 37 weeks	• Discomforts of pregnancy
Bleeding	• Active vaginal bleeding with/without abdominal pain	• Bleeding associated with cramping (> spotting) < 37 weeks	• Bleeding associated with cramping (> spotting) > 37 weeks	• Spotting	
Hypertension	• Seizure activity	• Hypertension > 160/110 and/or headache, visual disturbance, RUQ pain	• Mild Hypertension > 140/90 with/without associated signs and symptoms		
Fetal Assessment	• Abnormal FHR tracing • No fetal movement	• Atypical FHR tracing, abnormal BPP, abnormal dopplers • Decreased fetal movement			
Other	• Acute onset severe abdominal pain • Altered level of consciousness • Cord prolapse • Severe respiratory distress • Suspected sepsis	• Major trauma • Shortness of breath • Unplanned and unattended birth	• Abdominal/back pain greater than expected in pregnancy • Flank pain/hematuria • Nausea/vomiting and/or diarrhea with suspected dehydration	• Ongoing assessment from outpatient clinic (for hypertension, blood work) • Minor trauma (minor MVC/fall) • Nausea/vomiting and/or diarrhea • Signs of infection (ie. dysuria, cough, fever, chills)	• Anything that does not seem to pose threat to mother or fetus • Cervical Ripening • Outpatient placenta previa protocol • Pre-booked visits (ie. Rh and progesterone injections, NST) • Assessment for version • Rashes

Education

- Development of a triage self-learning package for nurses
- Educational sessions with 60 nurses participating, pre and post test
  - Principle of triaging
  - CTAS experience
  - Obstetrical Triage Acuity Scale (OTAS)
- Presentation of new process to all health care providers: physicians, nurses and midwives

OTAS : Reliability and Validity

Development of IRR Questionnaire

- **110 triage charts reviewed**
- **120 clinical vignettes developed**
  - Example:
    - G1 TPAL 0000
    - 32 wks gestation
    - Presents to triage, describes no fetal movement x 24 hours

- **8 experienced triage RN's provided with education**
- **Nurses accessed clinical scenarios and completed scoring online**

OTAS: Rater-Reliability

LHSC

	Weighted Kappa	Direct Correlation Coefficient
OTAS 1	0.77	0.88
OTAS 2	0.73	0.84
OTAS 3	0.61	0.75
OTAS 4	0.65	0.75
OTAS 5	0.87	0.83
	0.71	**0.79**

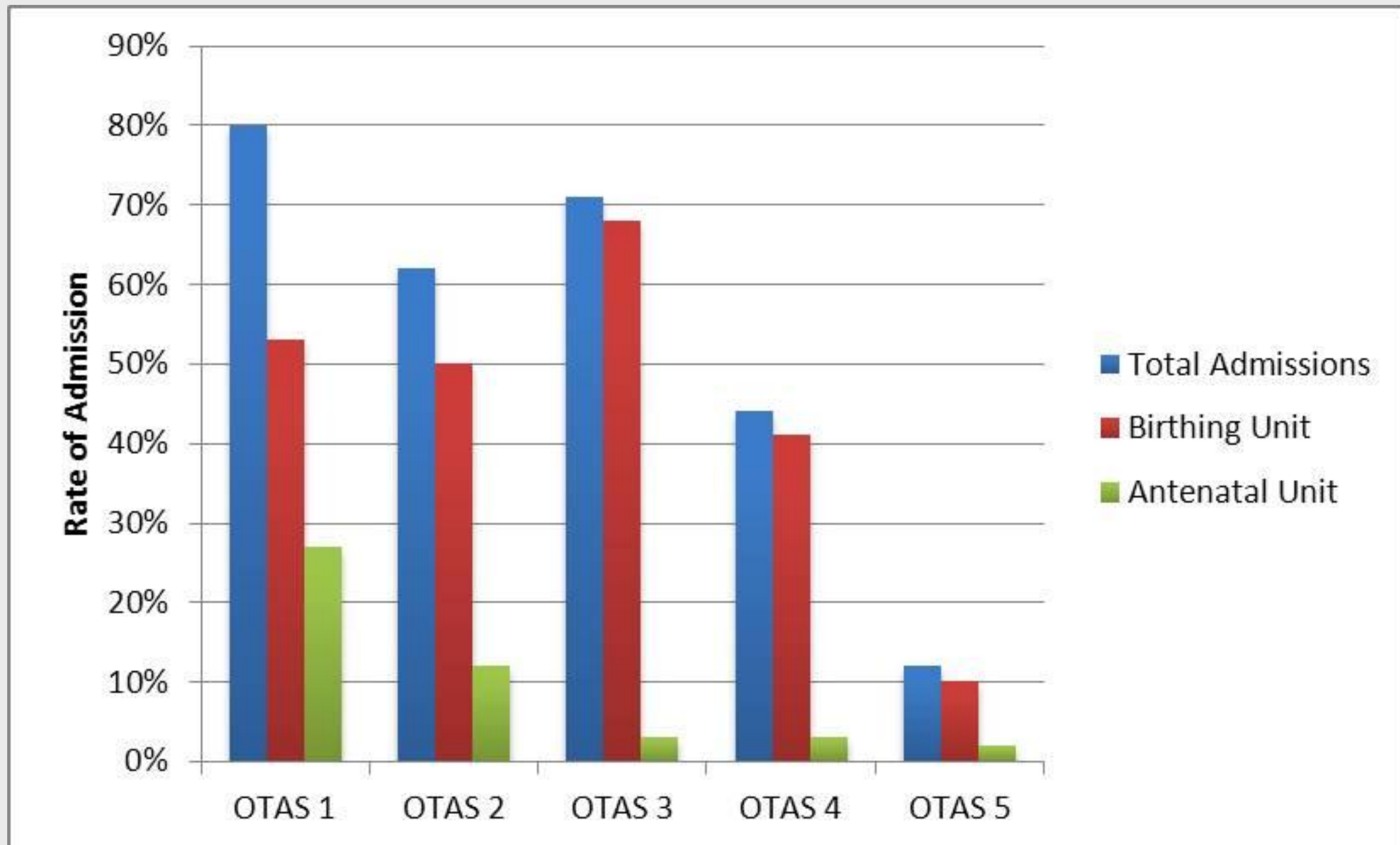
SGH

Weighted Kappa	Direct Correlation Coefficient
0.64	1.00
0.68	0.81
0.61	0.68
0.66	0.74
0.83	0.86
0.70	**0.78**

Kappa : <0.0 – poor, 0.0 – 0.20 slight, 0.21-0.40 fair, 0.41-0.60 moderate,
0.61-0.80 substantial, 0.81-1.0 almost perfect

Smithson et al, Am J Obstet Gynecol, 2013

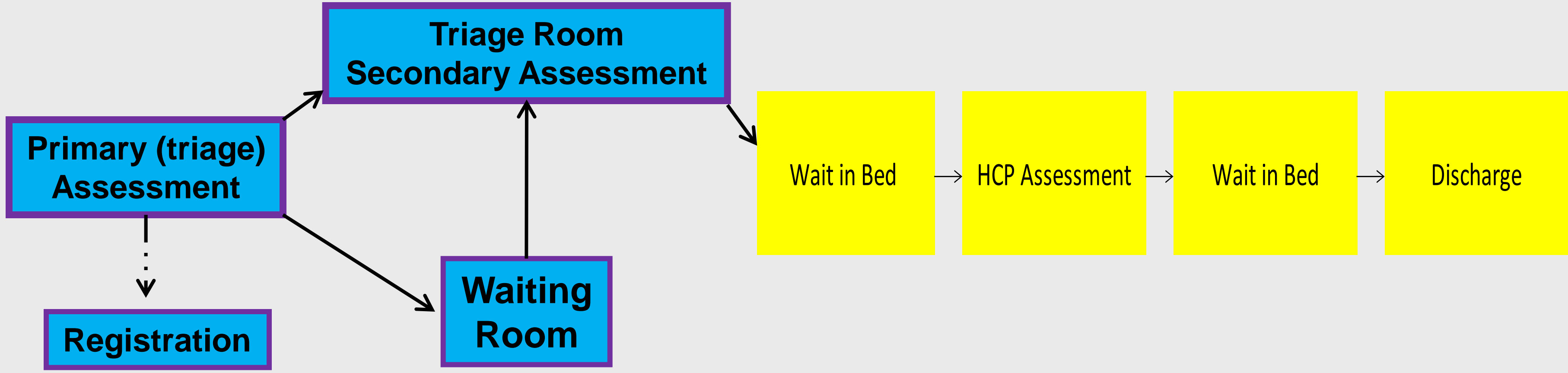
OTAS: Validity



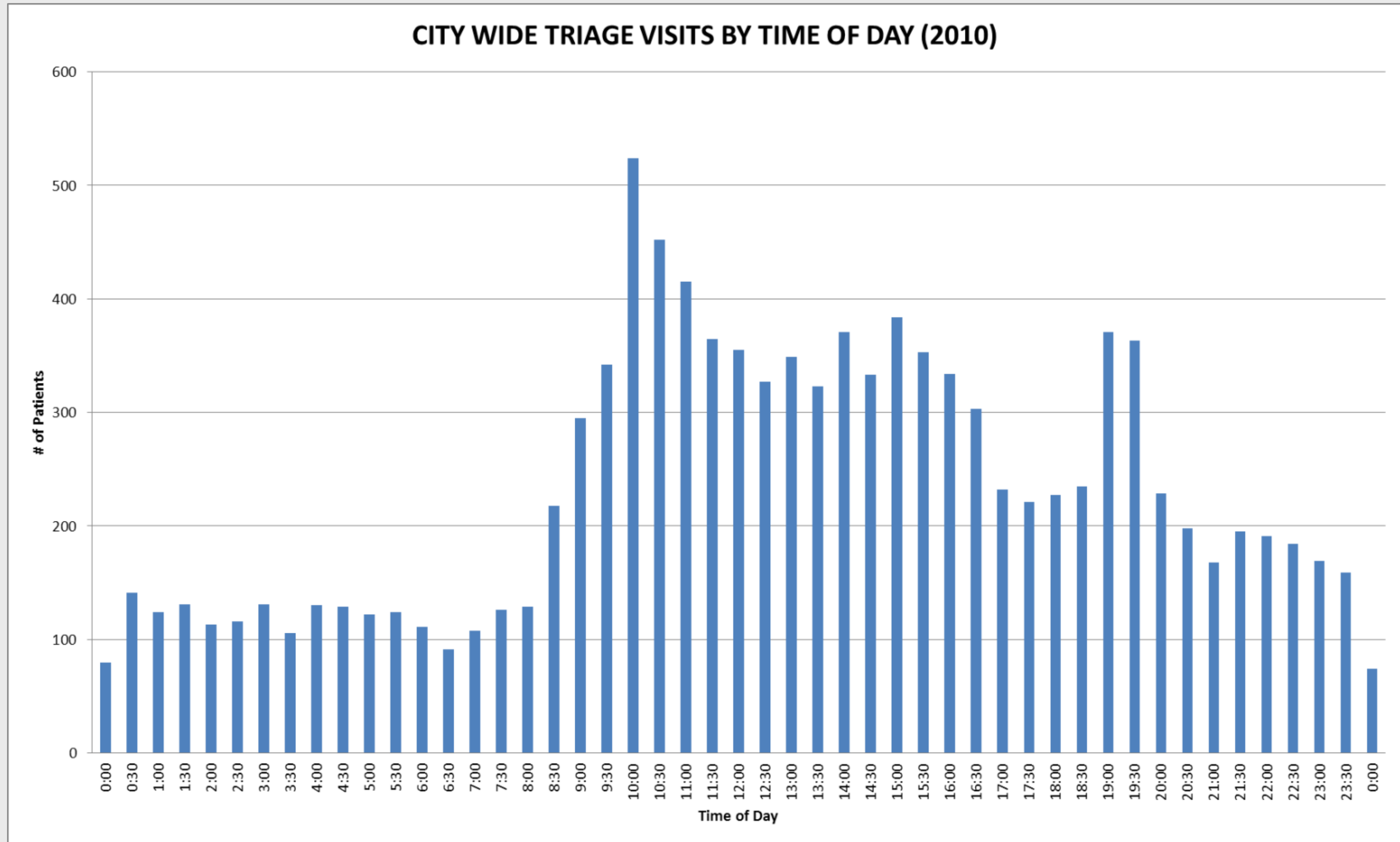
Smithson et al, 2013

The Impact of OTAS Implementation

Patient Pathway: Ob Triage



Resource management



CASE STUDIES

First part of video here

Hypertension: Definitions

- **Gestational hypertension > or equal to 20 weeks gestation**
- **Preeclampsia is defined as a hypertensive disorder that includes new onset proteinuria or one or more adverse conditions such as:**
  - BP > 160/110, pulmonary edema, chest pain
  - CNS: headache, seizures, visual disturbances
  - Renal: serum albumin < 20 g/L, increased serum creatinine
  - Hepatic
  - HELLP
    - *ALARM, 2012*

Hypertension in pregnancy

- 1–2% develop preeclampsia
- 5–6% gestational hypertension without proteinuria
- Gestational hypertension before 34 weeks: 35% risk of eclampsia

Assessment of BP

- Minimum rest period of 10 minutes
- Sitting position with upper arm at heart level
- Consistency in method and equipment
- Appropriate size cuff
- Korotkoff sound V to define diastole
- Use arm with higher value if difference

Trauma in Pregnancy

- 6–8% of pregnancies (U.S.)
- Most common causes
- Leading cause of nonobstetric death in pregnancy
- Risks
- Placental abruption is leading cause of fetal death

Domestic Violence (DV)

- Up to 23% of pregnant women
- May escalate in pregnancy
- Related to decreased maternal weight gain, prenatal care and preterm birth
- For women reporting DV, 60% indicate the partner is responsible

Approach to Care and Interventions

- "You did not deserve this"
- Attention to physical care
- Safety planning

Patient Flow : Quality Improvement Initiative

I thought I would be waiting longer…I had to wait much longer before…

I'm glad I'm not in a bed…since I'm not sick…

These chairs are quite comfortable…

Nice to see you again today…

It makes a big difference having a nurse taking care of the 4's and 5's. The higher acuity patients can be seen by someone else!

Conclusions

- Triage of patients has a long history
- Obstetrical triage is improved with the use of a valid, reliable 5-point acuity scale
- Critical thinking used by OB triage nurses is an area for further research
- Case study approach is helpful to explore common presentations to triage
- Patient centred approach is critical based on unique elements of each person's presentation

Questions

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