

safer healthcare
now!

Implementing a Safer Healthcare Now! Initiative Prevention of Surgical Site Infections (SSI)

Queensway Carleton Hospital
Childbirth Program



The Program Team

- Melissa Dougherty – Program Director
- Robyn McTavish – Childbirth Manager
- Beverly Thornhill – Clinical Educator
- Maureen Mears – Clinical Educator
- Marlene Taylor – Infection Control Professional
- SHN-SSI Multidisciplinary Committee



Impetus for Change...

- Implementation of SSI Bundle in Main OR
 - Align BU OR with Main OR practices/standards prior to Accreditation in Nov. 2008
 - Infection rate (clean contaminated C/S)
 - Possible public reporting
 - Volume of C/S
 - Quality of care
 - Balanced Scorecard leveraged action



2006 to 2009 SSI Rates for C-Sections

SSI Rate 2006-2007	SSI Rate 2007-20 08	SSI Rate 1 st to 3 rd Q 2008-2009 Draft	25 th Percentile Benchmark	50 th Percentile Benchmark
2.45 % (20/814)	1.90 % (16/842)	???	1.26 %	2.17 %

Goal is to be below the 25th Percentile



Health Care Associated Infections (HAI)

- HAI cause significant **morbidity and mortality**.
- **At least 30%** of health care associated infections **can be prevented** by following infection prevention strategies



Meeting with Obstetricians

- Meeting September 2008
- SSI Rates reviewed
- Education related to the NNIS (NHSN) definition of a Superficial, Deep and Organ Space Infection
- SHN SSI Bundle initiatives introduced, along with other strategies



Surgical Site Infection (SSI) Surveillance

- Post Discharge Surveillance
 - Receive Procedure lists from Health Records 8-10 weeks after month closes
 - IPAC circulate procedure lists with form letter to each surgeon
 - Return rate 93-95%
- Readmission diagnosis (is it related to surgery)?
- Candidate report- review all swabs sent for C&S
- IPAC surveillance unit rounds Monday - Friday
- Physician, Unit, or Lab reporting a possible cluster



What does not meet the NNIS (NHSN) definition for an SSI:

- Seroma
- Cellulitis
- Stitch Abscess
- Localized stab wound infection
- Pain, localized swelling, and redness only

(A Physician may treat with an abx (“just in time”), but the above still does not meet the NNIS definition-it certainly is a wound issue/concern, but it does not meet the NNIS definition)

“Can you re-do all of the past stats!!!”



Presentation to Birthing Unit Nursing Staff

- Similar presentation given to the Birthing Unit staff Oct 2008
- Get out and mingle-talk it up with front line staff; you will be surprised what you learn
- Remember old habits die hard sometimes....
- Decided to do concurrent audits to get a baseline



30 Concurrent Audits Completed Oct/Nov 2008

- Audit tool similar to the example in the SHN Booklet
- Concurrent audits make everyone more aware and thus more accountable
- Results:10% Shaved in Birthing Unit
23% Shaved at home
53% Clipped in Birthing Unit
13% No hair removal



Antibiotic Timing Results

- 3% No antibiotic given
- 80% Antibiotic given when cord clamped (present/appropriate practice)
- 17% Antibiotic given within 15-60 minutes prior to incision



Audit Results

- **Reviewed and tallied by ICP**
- **Totals sent to Decision Support**
- **Decision Support entered results into SHN Data Base**
- **Totals sent to Child Birth Educator to circulate**
- **Results presented at Maternity Care Committee**



Preventing Surgical Site Infections



- Safer Healthcare Now! Initiative
- SSI Bundle Components
 - Appropriate hair removal
 - Timely antibiotic administration
 - Normothermia
 - Glucose control (for cardiac surgery only)

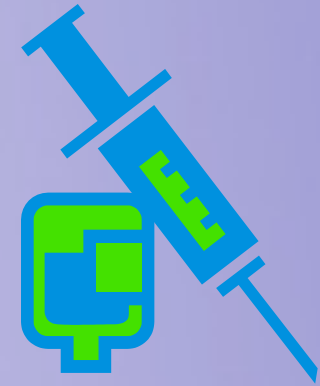


Hair Removal

- Recommendation
 - No shaving, use clippers
- Baseline audit
- Implementation of recommendations
 - Patient information
 - Staff & Physician education/awareness
 - Removal of razors



Prophylactic Antibiotics

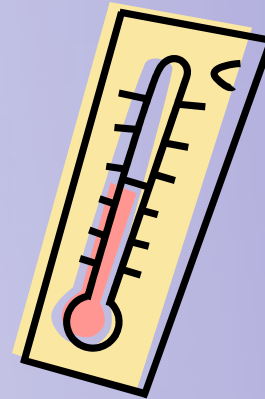


- Recommendation
 - Within one-hour of surgical incision
- Baseline Audit
- Implementation Process
 - Involvement of Infection Control, Pharmacy & Paediatrics
 - Use of Anaesthesia & Obstetric “champions”



Normothermia

- Recommendation
 - Maintain normothermia intra-operatively
- Current Practice
- Next steps



Evaluation

- Concurrent Audits
- Quarterly Infection statistics monitored at Maternity Care Committee
- Reporting to Safer Health Care Now! Committee
- Monitoring outcomes for Balanced Scorecard



SSI Rates 2008-2009

2008-2009	<i>1st Q</i> <i>April to June</i>	<i>2nd Q</i> <i>July to Sept</i>	<i>3rd Q</i> <i>Oct. to Dec.</i>	<i>25th Percentile Benchmark</i>
<i>C-Sections SSI Rate</i>	1.38%	3.16%	1%	1.26



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Getting closer to our goal and we will be implementing more of our planned initiatives soon. Outcomes for our patients look promising.



Changes

Before	Now or Soon
Razors present	No Razors (clip if necessary)
Pts shaving @home	Education to not shave surgical area 7 days prior
Abx given at cord clamp (Anaesthesia)	Abx will be given before incision -working out processes (preop orders, nursing to give, ? IV push or by mini bag) etc
Povidine skin prep	Trialing Chlorhexidine Gluconate
Normothermia –temp. before and after	More temperatures readings to evaluate present measures
	P.M. before/A.M. Chlorhexidine showers
	Surgical Pause



What Next?

- Continue to implement all SSI recommendations
- Repeat concurrent audits
- Review results to see if all initiatives have been implemented by all staff
- Circulate results
- Review SSI rates
- Re-evaluate, assess, plan, implement, evaluate again...



Lessons Learned

- Ensuring consistency of practices/standards between Main OR and BU OR
- Interdisciplinary involvement
- Capitalizing on opportunities for change
- Be patient as the background (planning) work is being done-it will pay off



Thank You. Questions?

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