

URINARY TRACT INJURIES AT CAESAR

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Background



- Associated with:
 - Prolonged operative time
 - Urinary tract infection
 - Prolonged IDC time
 - Formation of vesico-uterine or vesico-vaginal fistulas
- Risk factors

Emergency caesarean	Previous pelvic surgery
Labour before surgery	Endometriosis
Gestation <32/40	Urinary trace abnormalities
PROM	Pelvic irradiation
Previous caesarean	Obesity
Skill of operator	Fibroids
- Incidence in the literature 0.14-0.94%

Aims

- To determine the rate of suspected and confirmed urinary tract injuries at caesarean in Sunshine Hospital
- To examine any common risk factors for urinary tract injury
- To examine management of suspected and confirmed urinary tract injuries at caesarean section
- To report consultations and urology team involvement in any suspected or confirmed injuries

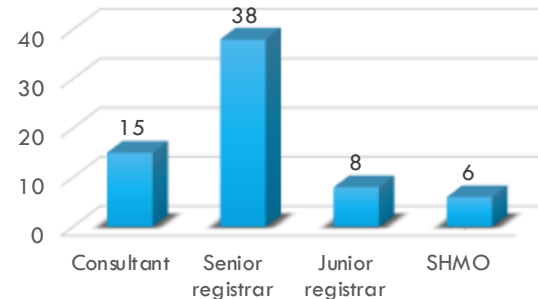
Methods

- Audit of 12 months of caesareans performed at Sunshine Hospital
- 6081 pregnancies, 2087 caesarean sections, 942 elective, 1145 emergency
- Review of operation report to determine whether urological injury was suspected or confirmed
- In depth review of suspected or confirmed cases

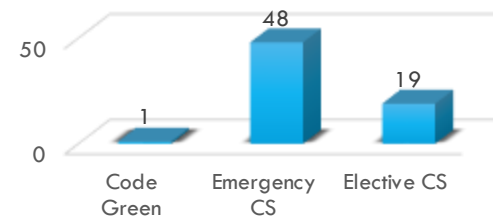
Results

- Antenatally identified risk of urinary tract injury pre-op – 3 cases
- No previous urinary tract injury but difficulties at time of surgery or measures taken to reduce risk of urinary tract injury - 6.7% (140)
- Haematuria noted post-op but no suspicion of injury - 4.2% (88)
- Suspected or confirmed injury - 3.2% (66)
 - Previous caesar - 61.5% (41)
 - 1 previous 60%
 - 2 previous 30%
 - 3 previous 7.5%
- Confirmed injury- 0.81% (17)
- Injury repaired by O&G 82% (14), Urology 12% (2) Combined 6% (1)

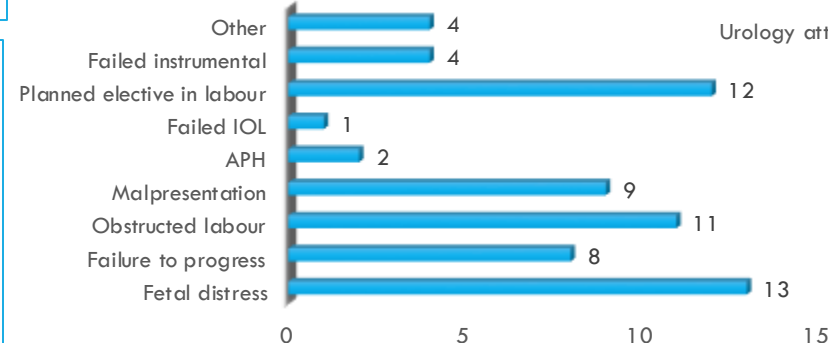
Grade of principal operator commencing CS



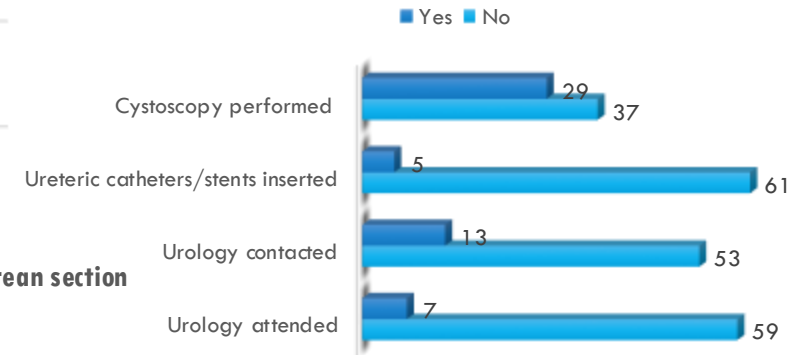
Caesarean category



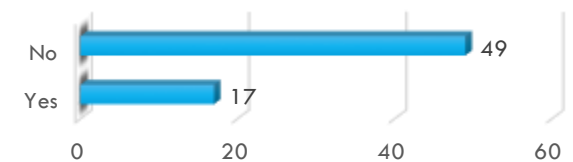
Indication for emergency caesarean section



Management of suspected injuries



Injury confirmed



Rajasekar, D. and Hall, M., 1997. Urinary tract injuries during obstetric intervention. *BJOG: An International Journal of Obstetrics & Gynaecology*, 104(6), pp.731-734.

Phipps, M.G., Watabe, B., Clemons, J.L., Weitzen, S. and Myers, D.L., 2005. Risk factors for bladder injury during cesarean delivery. *Obstetrics & Gynecology*, 105(1), pp.156-160.