Improving the quality of care – learning through case studies

Retained abdominal swab

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Note: In this series of case studies, serious adverse events that occurred in public hospitals are discussed with the aim of learning through other people's experiences. They are also meant as a sober reminder that any one of us could err and that we need to exercise due care at all times. Some details of cases and all the names have been altered to protect the identity of patients and staff members, but all are based on real cases.

ABSTRACT
Ms Meso required a caesarean section. During the operation, an abdominal swab was left in her abdomen. Both the scrub sister and the checking nurse signed to say the swab count was done and was correct. This article will show the devastating effects of this error for the patient, her family, the hospital and the Health Department.

Details of the case
Ms Meso was a 30 year old mother of one when she was admitted in labour but needed a caesarean section as her labour was prolonged. The operation was uneventful and she was delivered of a baby boy. She was discharged from hospital 5 days later with no apparent problems. A month later she noticed pus coming out of her wound and leaking from her vagina and presented at the hospital with abdominal pain.

On admission her temperature was 38°C and her wound was clearly septic. She commenced intravenous antibiotic therapy and was taken to theatre for a laparotomy during which an abdominal swab was found in her abdomen. The abdominal cavity cleaned of pus and a drain was inserted. Debridement was performed and the wound sutured. She remained in hospital for 10 days while receiving intravenous antibiotic therapy. During which time the wound oozed and was redressed. She was discharged once the oozing stopped despite the failure of the wound to heal and was referred to the local clinic for dressings as well as being given some dressings for use at home.

Ten days after discharge, Ms Meso was readmitted as the wound had still not healed. She was taken to theatre for secondary suturing but the decision was taken in theatre that the wound needed further dressing and cleaning before secondary suturing could occur which was eventually peformed successfully 7 days later.

Ten months later Ms Meso approached the hospital asking for “compensation” due to the “poor treatment” received. When asked to detail her complaint, she understandably, complained firstly that the abdominal swab had been left in her abdomen leading to weeks of hospitalization and pain and discomfort. She also complained that the dressings given to her after discharge were insufficient and she had to buy more from the pharmacy. As she was still feeling unwell she had also consulted a general practitioner which incurred further expense. She believes that the episode had “destroyed her health.” She had to wean her baby early as the hospital allegedly would not allow the baby to accompany Ms Meso when she was readmitted for removal of the swab. Lastly, she contends she had intended to have more children but as she is already “crippled” was afraid of having another baby.

Identification and analysis of critical events
• The scrub sister (a trained theatre nurse) and the checking nurse (a staff nurse) either did not count the swabs or did not tell anyone there was one missing. The scrub sister further either informed the surgeon, or he assumed that the swab count was correct before closing the wound. They also falsely endorsed the records that the swab count was complete.
• The hospital discharged the patient with insufficient resources to manage her complicated wound care.
• The hospital policy did not allow the baby to room-in with the mother when she had to be readmitted. This meant that the mother, who had been successfully breast-feeding despite her health problems, could no longer do so.

Root causes
What do you consider could, or should have been done for this case to have had a happier outcome, if anything?
• Why do you think the nurses did not count the swabs properly and why do you think they falsified the records?
• Do you think the patient should have been discharged home with an open wound after her surgery? What alternatives do we have other than keeping them in hospital for prolonged periods of time?
• Do you agree with the policy of the hospital not to admit babies of breast feeding mothers to the ward? Should the hospital have provided better support to this patient?

Swab Counts
Fact sheet no 1 gives more information on retained swabs.

When investigating the case of Ms Meso, it became evident that the staff had been under a great deal of pressure to complete the caesarean section as there were other urgent caesareans waiting to be done. While this does not excuse what happened,
it adds weight to the opinion that hospitals should pay attention to time management. The only way to reduce the time pressure is either to add resources including an additional theatre and additional staff to run a second “caesarean” theatre, or reduce the number of patients needing caesarean section. As the particular hospital in this study is a referral hospital, and professional nurses are not available, the onus lies on the scrub nurse and the floor nurse at the beginning of the operation, every time any additional packs of swabs are opened, any time the scrub nurse had counted and found a swab missing, she would have known better but as swabs are seldom left behind, she was lulled into a false sense of security and took a short cut. It was an extremely serious error on her behalf and that of the floor nurse who should have checked the count. The scrub sister also thought the surgeon would feel the abdomen before closing to check for swabs, which he undoubtedly should have done. He did not do this adequately but the onus lies on the scrub nurse to count and inform him if the all swabs are not accounted for.

It also became evident that the relationship between doctors and nurses in theatre did not encourage good communication and honesty. The doctors assumed an air of superiority and did not acknowledge the nurses’ knowledge and skills. Even if the scrub nurse had counted and found a swab missing, she would have found it difficult in the tense situation to say so and risk the surgeon’s wrath at having to delay the conclusion of the operation. In retrospect, what followed was much worse than the surgeon’s wrath at having to delay the conclusion of the operation. In retrospect, what followed was much worse than the surgeon’s wrath at having to delay the conclusion of the operation.

Gencosmanoglu and Inceroğlu cite some of the complications of gossypiboma as adhesions, obstructions of the bowel and fistulation. The longer the swab is left in the abdomen, the greater the chance of a fistula forming. Prevention is the best treatment as in many other medical problems. Avoidance of leaving foreign bodies inside the patients should be possible by implementation of three measures:

1. Meticulous count of all surgical materials
2. Thorough exploration of the surgical site at the conclusion of the procedure
3. Routine use of surgical textile materials impregnated with a radio-opaque marker

Riley and others sought to find reasons why swab counts are not done correctly. Their study “highlighted the power relationships between members of the surgical team and the complexity of striking a balance between organisational policy and professional judgement.” They suggest that “increasing professional accountability may help to deal with the issues of normalisation, whereas greater attention needs to be paid to issues of time management.” And that “more sophisticated technological solutions need to be considered to support manual counting techniques.”

Every hospital has its own policy regarding swab counts, but generally the swabs and instruments should be counted and checked by the scrub nurse and the floor nurse at the beginning of the operation, every time any additional packs of swabs are opened, any time the scrub nurse is worried a swab might be missing, before closing the sheath and again at the end of the operation.

Wound management

Fact sheet no 2 gives more information on wound management.

FACT SHEET NO 2: Wound management

The purpose of dressing a wound is to provide an environment that is conducive to optimum healing. The dressing must therefore be able to fulfil the following functions:

1. Remove excess exudates and toxic components.
2. Maintain a high humidity at the wound-dressing interface.
3. Allow gaseous exchange.
4. Provide thermal insulation.
5. Be impermeable to bacteria.
6. Be free from particulate or toxic components.
7. Allow change without trauma.
8. Be acceptable to the patient.
9. Be highly absorbent (for heavily exuding wounds.)
10. Be cost-effective.
11. Provide mechanical protection.
12. Be conformable and mouldable.
13. Be able to be sterilized.
14. Minimize pain, odour and bleeding.
15. Be comfortable when in place.

When reviewing the care Ms Meso received with regard to her wound care, there was a great deal lacking. She was given dry dressings (gauze swabs) to take home and a roll of hypo-allergic paper tape to secure the dressings. Dry dressings do not meet many of the criteria listed in fact sheet no 2 on wound management. The fibres tended to remain in the wound when the dressing was removed. Occlusive dressings that are applied and remain in situ for several days are increasingly being recommended by the wound care experts and, because healing is faster, are more cost-effective than dry dressings for complicated wounds. Had Ms Meso had an occlusive dressing applied on discharge, and had she been able to attend a clinic where a wound care
specialist was available, she would have been saved a great deal of distress and personal cost. As it was, her dressings ran out before her readmission for secondary suturing, and with such a large wound, one roll of hypo-allergenic paper tape was insufficient. The issue was not so much whether she should have been discharged with an open wound, but rather that better support should have been available to her at the local clinic and she should have received more appropriate wound care in the first place.

Readmission of a breast-feeding patient

Fact sheet no 1 gives more information on caring for the breastfeeding patient.

In reviewing Ms Meso’s complaint against these guidelines, one would certainly believe that she was not correctly managed as, to refuse to readmit the baby, they violated at least points 4, 5 and 7 of Fact sheet no 3: Caring for the breast feeding patient.

It is important, however, to look at the context and take this into consideration as well. The needs of other patients should be considered. Having a one month old baby in a surgical ward would be disturbing for ill patients. Ms Meso could not be admitted to the maternity unit as she was septic. This leaves the possibility of putting her in a side ward. Most hospitals have side wards but, increasingly, they are being used for dying patients to afford them peace and quiet and also for very ill patients who need constant care. Certainly, every effort should have been made to accommodate Ms Meso and, if a side ward were not available this should have been explained to her instead of merely saying “it was against hospital policy” when, in reality as it turned out, there isn’t a written policy in this regard in any event.

In answer to the question, “should the hospital have provided better support to this patient” the answer has to be yes. This serious adverse event was avoidable in the first place but the staff did not communicate with Ms Meso adequately or give her practical or emotional support, largely because they felt guilty that it had happened and also because they were afraid if anyone said anything about the swab, Ms Meso would sue. The hospital is developing a policy regarding the management of patients with breast feeding infants. The main issue in this regard however, is still one of compassion and caring. The staff members need to show more understanding of individual patient’s needs and to talk to them about the possibilities available to assist them. Even if a policy exists, it needs to be carefully and sympathetically explained to patients.