

MATERNITY MATTERS IN UGANDA?

Introduction

In 2007 a link was set up between the Basingstoke and North Hampshire Hospitals NHS Trust and Hoima Hospital, a provincial referral centre in Uganda. In January 2008 three staff from this hospital visited Basingstoke. After discovering such a great disparity in staffing levels, equipment, training and maternal morbidity I offered to both bring a maternity team to visit Hoima and also to help organise a maternity conference in Kampala. On the 2nd October a team of nine comprising two obstetricians, two obstetric anaesthetists a neonatologist and four midwives flew out to Entebbe Airport which proved to be modern and hassle free by African standards, all that was required was £30 each for a visa. Our adventure began well as all the other team members were given a free upgrade to World Traveller Plus to join Rob and I nearer the front of the plane.

Journey to Hoima

We were met at the airport by Duncan Sherlock who proved to be our invaluable 'fixer.' He had to pay a soldier the equivalent of 50p for 'guarding' our minibus (fig) while it was parked in the airport car park. We began the three-hour drive to Hoima after a brief stop for breakfast and a 'shortcall' at the Gateley Hotel where we were booked for our final night we arrived at our destination the Kolping Hotel in time for lunch. Hook businessman Duncan with his wife and four children was spending a year in Hoima building an orphanage and his own private clinic called *Azure* which had reached 150 deliveries a month. He has to pay his midwifery staff twice the going rate, but if anyone is caught stealing they know they will be sacked. There apparently was a significant problem sacking anyone employed in government services whatever they do. Duncan said his private hospital is also trying hard to introduce contraceptive implants as the population of Uganda is forecast to more than double over the next 20 years.

After lunch we went to the hospital where we met the two final year London medical students, Jo and Sanja. After being greeted by medical director Dr Emmanuel Moro and senior nurse Florence Acheng who had both visited Basingstoke in nine months ago, we were given a guided tour of the maternity and paediatric units. The latter was a rather a sad place with anxious parents, many just waiting for their child to die of HIV related illness, cerebral malaria or acute respiratory infection. The medical students seemed to have been left in charge. Our impression of maternity was also not very positive, by UK standards the midwives and the medical staff were rather rough and insensitive towards the patients. There seemed to be an absence of kindness, compassion or any attempt at preservation of personal dignity. There were no indoor toilet facilities, the women had to go outside near a clump of trees. The midwifery and medical staffing levels were low and there did not appear to be any senior obstetric back-up as the only consultant was away on holiday. The medical students reported about one woman every four days dies because of the complications of childbirth usually haemorrhage or eclampsia. On that first afternoon some members of the team did in fact see the bodies of a dead woman and her baby. The corpse of the baby was collected by a woman, and put in a suitcase which was then carried away on her head. We are not sure what happened to the woman's body.

Our team were involved in two obstetric emergencies with the blessing of Dr Moro. The first was a gravida eight 36 year-old woman who had been in obstructed labour for more than 24 hours. Dr Rob assisted by one of the local interns performed what he said was one of the most challenging caesarean sections of his career. The baby's head was deeply impacted in the pelvis in a deflexed occipito- posterior position and the bladder was very oedematous. There were no large packs available, the instruments were old and the scissors were blunt. He had brought four packets of *Vicryl* sutures but when he asked for the fourth one the scrub nurse seemed unable to find it! The technique used by anaesthetic officer Joseph, assisted by Dr Jo, was induction with thiopentone, intubation using suxamethonium and maintenance with ether initially 8% and then dropping to 4% at which level the woman started breathing spontaneously. The baby came out very flat with a heart rate of about 40 and midwife Gail who had been designated to resuscitate the baby had to do mouth to mouth inflation breaths because the available mask was too large. This she did effectively and the baby survived. After surgery the patient was left in the theatre corridor with no monitoring, no oxygen and no recovery nurse, a normal situation at that hospital. Remarkably both mother and baby survived and were discharged home four days later.

The second case was a 19 year-old woman who was unconscious after several eclamptic fits during the past 24 hours. Dr Rob used an ultrasound machine which was destined for the Azure Maternity Unit to demonstrate that the baby was dead. On examination she was found to be fully dilated so Rob delivered the baby using a rather old-fashioned Ventouse set-up that he had photographed the previous day, hoping that he wouldn't actually have to use it. The local management of this case would have been to have performed a caesarean section for delivery of the dead foetus which might have killed her. 12 hours later, miraculously, the patient woke up and then went home the following day. Our midwives also spent a day on the labour ward at Hoima and were involved in some deliveries. Unfortunately some of the local midwives took this as an opportunity not to share ideas but actually to disappear and let our girls do the work.

Anaesthesia provision at Hoima (By Dr Jo Meikle)

Anaesthetic Staffing

There did not appear to be adequate anaesthetic cover for Hoima Hospital. We were informed of an emergency case where the hospital had been unable to find an anaesthetist to attend. It was unclear if this was because an individual had refused to come in when they should have done or if there are not enough anaesthetic officers to provide round the clock cover. The anaesthetic officers did not receive much if any CME or support from medically trained anaesthetists. This will make it difficult for any of them to make changes to improve practice. The anaesthetic officer I worked with was thorough and was doing his best in difficult circumstances. He had a sound knowledge base but was severely limited by the lack of drugs and equipment.

Anaesthetic Technique

I was surprised that so many of the patients having sections in Hoima had general anaesthesia in preference to regional, which I would have thought was not only safer, but provided better

analgesia post-op. The anaesthetic officer said that he found regional anaesthesia difficult as he was also required to resuscitate the baby. He found that when he was using regional techniques the women became hypotensive, a common side effect of regional anaesthesia. He could not manage this and be resuscitating the baby at the same time so it was easier to give a general anaesthetic. Whilst I understood his problems, this did seem to expose women to greater than necessary risks, especially considering the lack of adequate monitoring.

Equipment and Drugs

The anaesthetic machine in Hoima was an EMO machine (fig), which has served its purpose for many years delivering ether. The hospital had been given a complex machine which has never worked, illustrating that there is little point in donating out of date equipment which cannot be maintained. There was an oxygen saturation monitor which the anaesthetic officer thought did not work very well as it did not pick up saturations in patients who were hypotensive. In fact, this is true of all oxygen saturation probes and perhaps indicates the condition of most of the patients during anaesthesia. We tactfully discussed this with the anaesthetic officer.

There was a manual sphygmomanometer, which again the anaesthetic officer had to be prompted to use. There was no means of monitoring the amount of anaesthetic delivered to the patient, ECG or end tidal carbon dioxide. My overall impression is that after induction for a caesarean section the anaesthetic officer sits back and hopes for the best!

There was a very limited range of drugs in theatre. I saw no analgesic drugs at all, and only a few vials of thiopentone and suxamethonium. I understood that there was a problem with stock disappearing from the hospital, but not supplying in the first place does not seem a sensible solution to this problem.

There was a reasonable supply of IV fluids but we were informed that these had been ordered especially for our visit. Blood was sometimes available, but on a limited basis. It had to be transported from Kampala, which would have taken at least 2-3 hours. It seems likely that some people will be operated upon with very limited fluids available and no blood.

Recovery and post op monitoring

There was no recovery area and patients were not monitored as they recovered from their operation. We observed a post-op patient on a trolley, unmonitored and without oxygen in the theatre corridor. She had had a caesarean section a few days ago but had returned to theatre with an infected abdomen requiring laparotomy. The contrast was striking whereas in the UK a patient with this kind of complication would be managed in Critical Care in Hoima she was transferred straight back to the ward, where there was little monitoring and minimal staffing levels.

Other Hospitals

The following afternoon we visited Misindi Hospital which we all felt had a better atmosphere particularly in the maternity unit and the paediatric ward. On the latter one felt

there was an atmosphere of hope rather than of despair which existed in Hoima (fig). The local hotel where we stopped for tea had an amusing wood carving in the men's toilet (fig). On the way back Emmanuel our surgeon friend decided to take a short-cut via the sugar cane plantation but this rapidly became a 'long-cut' as we became seriously lost.

The next morning after a restless night punctuated by the howling of nearby dogs we awoke to the beat of Africa – continuous drumming and children singing. After sorting out the eclamptic lady at Hoima we visited the Azure clinic. In contrast to Hoima where we felt women were treated with little dignity and medical officers performed a caesarean section if there was any sort of a problem as they were not trained to use forceps or Ventouse, Azure had a great atmosphere with numbered clean beds, space between them, and smiling colourful mums cuddling their babies(fig). That evening we had an excellent buffet supper of fruit including avocado, papaya and fresh talapia fish. In the local market obstetrician Amara, originally from Pakistan, caused a stir when she took over at a stall where chapatis were being prepared and demonstrated how to cook them 'properly!' The following morning we left for Kampala. We stopped half-way there at Kibogu hospital, which also seemed to have a more pleasant atmosphere than Hoima. Unfortunately they were referring all their patients who required a caesarean to Hoima or Kampala because they had run out of suxamethonium, no one had suggested that they borrowed some from another hospital. We arrived mid afternoon at the Kolping Hotel in Kampala where we stayed for three of the next four nights. The night between the two days of the conference we stayed for convenience at the venue hotel.

Maternity Conference

This took place on the 7th and 8th of October at the Equatoria Hotel. After arriving in Kampala the previous afternoon we spent some time waiting to meet with various people at the Ministry of Health. We then visited Mulago Hospital, the national referral centre. The maternity unit there was for me something out of a horror movie. We witnessed a corridor where there were at least 20 women (fig) all in strong labour lying around in various states of undress waiting to go into one of the delivery rooms, in which there were five white coated medical students each trying to perform a delivery. There were no dividing partition between couches or any attempt at privacy. We also saw an incident where a dead baby wrapped up in a towel was dumped on a trolley about 8 feet away from a young woman (fig) who was awaiting a forceps delivery. Mulago has on average about 80 deliveries a day and over 30,000 per year, the real problem is that they are chronically understaffed. The midwifery sister we spoke to said she is supposed to work 8 hours a day, 5 days a week but in practice she tends to work 12 hours a day and frequently has to come in on some of her days off.

Conference, Day 1 – 'WORKSHOPS'

This started with an excellent presentation by neonatologist Dr Greg on current guidelines for neonatal resuscitation, particularly stressing that babies at birth should be initially dried off but not suctioned. After his presentation the delegates were divided up into three groups, each in a separate room. There were 15 anaesthesia providers which included three medically trained anaesthetists, 50 medical officers, who do most of the Obstetric work in the hospitals, and 82 midwives, making a total of 147 delegates. Dr Greg (fig) assisted very ably by the two

medical students ran continuous practical neonatal resuscitation workshops with the help of three baby mannequins during both days and almost every delegate received individual practical training which could well prove to be life saving.

Neonatal resuscitation (by Dr Greg Boden)

Because of the difficulties in the obstetric service, infants are often expected to be in poor condition at birth. From discussions with doctors and midwives at the resuscitation station it was evident that there is not only a lack of staff available for infant resuscitation but there is no preparation made for a potentially asphyxiated infant. Basic equipment is lacking and often this is not expensive and is reusable. All were unfamiliar with international guidelines on newborn resuscitation and care and there is no system in place for training professionals in newborn resuscitation. The resuscitation station proved that all present at the conference were very keen to learn resuscitation skills and all 147 delegates spent time at the tables practicing their skills. It was noticeable on the second day that they had already changed their practice in the way they approached and practiced on the manikins.

I believe a huge difference could be made just by providing basic equipment and training and then most importantly, training Ugandans to be instructors to provide ongoing training locally. Hopefully our sessions proved helpful and have resulted in some debate amongst the delegates, this, as with everything we did at the conference will fade away unless there is further reinforcement of the principles we were teaching and I hope to maintain contact with a number of the delegates we met to keep reminding them, amongst other things, to STOP SUCKING!

Obstetrics (by Mr Robert Bates)

I had been rather wary of the Ugandan team's promise to run the obstetric workshops and came to Kampala armed with five topics ready prepared to use if necessary. This was just as well as Ugandan team's preparation had not materialised. Myself and Amara ran five very successful workshops throughout the day on obstetric haemorrhage, infection in pregnancy and the puerperium, operative delivery, antenatal care and pre-eclampsia / eclampsia. These stimulated lively debate and much interest from the Ugandan medical officers.

Anaesthesia

This was based on short presentations by either Jo or myself which promoted lively discussion on various issues. We finished up by having a powerpoint quiz where you stood up if you thought the answer was true and stayed sitting if you thought the answer was false. After a number of questions a winner emerged who was given a monetary prize.

Midwifery (by midwife Jemma Horsfield)

82 midwives attended the conference. We started with introductions and how long they had been qualified. The highest parity patient anyone claimed to have delivered was a remarkable 29. This lady had had 19 live births but surprisingly no PPHs. We then discussed issues such as late referral from TBA's, the number of women admitted in very early stages of labour because they did not wish to make the long journey home, chronic lack of both

midwives and experienced medical doctors, inadequate equipment, long delays waiting for emergency caesareans to be performed, the need to reduce the birth rate and complications from illegal abortion. They also were very keen to know more about ARM, Instrumental deliveries, normal labour, abnormal antenatal, postnatal issues, and HIV infection.

Each of the four of us gave presentations about aspects of pregnancy and childbirth. I talked about positions in labour and when asked what position most women adopted for the second stage *Lithotomy* was muttered around the room. This reflected what we have observed and heard whilst visiting and working at various hospitals in Hoima province. An interactive discussion and demonstration of the best positions and associated mechanisms of normal labour followed using ourselves and the dolls and pelvises we had brought with us. At the end of the session the midwives practiced a new upright birth position with each other. This was accompanied by much laughter.

The afternoon session considered warning signs and practical management of shoulder dystocia. In my group there was little insight that this was an emergency life threatening situation -- only a few delegates linked it with maternal complication such as uterine rupture and PPH. Most were aware that the baby might be difficult to resuscitate but no-one said that specific preparations should be made for this eventuality.. All were amazed that they had learnt new skills which were relatively easy to remember. The handouts were well received.

An excellent buffet lunch was provided by the hotel, sponsored by the UNFPA. After lunch our team did a role-play of the Major Obstetric Haemorrhage drill on our labour ward in Basingstoke, the aim of which was to illustrate the teamwork essential for a successful outcome.

Conference Day 2 - 'Lectures'

Members of our team and Ugandan colleagues gave presentations on different but relevant topics to the main conference theme which was Emergency Obstetric Care.

The Conference ended with the 'opening ceremony' and the 'closing ceremony' both occurring at the same time in the presence of three staff from the Ministry of Health. The Minister for primary healthcare, Dr Emmanuel Otaala, made several interesting points. First of all he discussed the maternal mortality figures in Uganda which he was pleased to say had decreased from 525 to 435 (as opposed to about 10 in the UK) per 100,000 pregnancies. A quarter of these deaths he said were due to illegal abortion. He felt that although patients may sometimes take a long time to travel to a hospital there should not be undue delay after reaching these health facilities. He said the Ministry was working on better remuneration for health workers and that more workshops were needed to address the attitudes and medical ethics of the staff. He said that 80% of the population live out in the regions rather than in Kampala and that at present there was a failure to attract doctors in particular to regional health centres. He said that maternal death audits were to be introduced and also partograms on every patient. He said in the future there might well be legal implications concerning maternal death. During his talk I suddenly awoke to the sound of a text from Greg at the back of the room telling me to 'wake up!'

I had to give a short speech in the presence of the ministers:

“I would like to thank the Ministry of Health for generously sponsoring the Conference in such a suitable venue. It is fantastic to be here in Uganda trying in our own small way to have some influence on Millenium Development Goal number 5 – to decrease maternal mortality rates by 75% in Africa by 2015. We have all had an amazing time, you are such a generous and friendly people. It has been a privilege to see first-hand some of the obstetric problems you have in this beautiful land and meet some dedicated fellow medical professionals who are struggling against all the odds with limited equipment, drugs and staffing levels, to improve maternal and infant mortality rates. We hope that during this Conference we will have learnt many things from each other.”

Everyone including the main organiser Dr Emmanuel Moro felt that the Conference had been a great success and one of the good things was that it provided a forum where many issues could be raised by our Ugandan medical colleagues both with each other and more importantly in front of Ministry of Health officials.

Independence Day – 9th of October

This is the day when independence from Britain in 1962 is celebrated. We visited a local craft market where there were some superb carvings including a wooden gorilla which I bought. I even tried to persuade one of the young women vendors that I would be happy to sponsor her to go to midwifery training school. Our midwives were told there wasn't really a problem with midwifery numbers in the country but that once you had trained as a midwife you had to work where the government told you to go or else you didn't have a job, so in theory if you lived in Kampala with your husband and children you could be sent on your own anywhere in the country. This situation led to midwives being unemployed in spite of inadequate staffing levels in many hospitals.

We had lunch in a revolving restaurant with our surgeon friend Emmanuel, his wife and daughter and also Duncan and Helen with their children. This gave us an opportunity to repay some of their hospitality. Rob, Greg and I then visited a remarkable orphanage which was part of the *Watoto* Group. This stood in my opinion as a beacon of hope in a sea of despair represented by the various medical facilities that we have visited in Uganda. It had about 70 orphaned children aged between a few days and a year old, many of whom had been picked out of sewers or off rubbish dumps by the police and taken to this facility. They were all being well cared for in a beautifully decorated building with a plethora of state of the art toys (fig). After the visit Rob and I went and joined the girls having a pedicure in *Sparkles* a local nail bar, which was a new experience for me. I sat on a vibrating chair while an unemployed graduate clipped my toenails, sandpapered the bottom of my feet and then massaged them in a water bath (fig). We then went to an unusual eating establishment where we all sat at the same table but waiters from different restaurants offered us a wide choice of different food.

The next morning we drove to Jinja and checked into the Kingfisher Hotel. That afternoon we went on an enjoyable two and a half hour quad biking safari (fig) through local villages where we were frequently mobbed by enthusiastic children and finished overlooking the Bugali Falls the first serious waterfall of the impending all day white-water rafting trip scheduled for the next day. We were all geared up in helmets and lifejackets and survived I

think it was five Grade 5 waterfalls with names like ‘*Silverback*’, *50/50* and ‘*The Bad Place*’. Out of the seven of us on board Jemma was the only one not to fall out.

The following day we went to the lively Kampala Pentecostal Church associated with the Watoto group who run several orphanages in the area including one with 1000 children. Their mission statement includes the fact that they intend to ‘*provide the future leaders of the country*’. We were then transported to Entebbe for our final night. Greg, Rhiannon, Rob and I went fishing on Lake Victoria with a boatman named ‘Snake.’ We caught three Nile perch. Rhiannon (fig) was top rod with two, Greg landed the largest which weighed 7kg and fed the whole team for supper.(fig)

Final Comments

It had been a remarkable 10 days in Uganda, we not only experienced some of the fun tourist activities, but also were privileged to be allowed to witness aspects of a maternity service which compared to that which we have in the UK were dehumanising and sometimes almost brutal. The problem may not be the fault of the medical and midwifery staff who are in many respects brutalised themselves by the system. They work very long hours for very low pay whilst working in hospitals where they may be separated from their family and friends so perhaps it is understandable why they then take it out on those who are dependant on them, namely the pregnant women.