Serial maternal deaths in a tertiary care hospital: some questions

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Between February 13 and March 18, 2011, a total of 18 women lost their lives while admitted in Umaid Hospital and the MG Hospital, Jodhpur, for medical management of their pregnancies (1). The majority of these women were from villages and all were from weak socio-economic backgrounds. Two of them belonged to families identified as being below the poverty line. Of the 14 women who died in February, eight delivered through lower segment caesarean section. Four underwent hysterectomy. One also had emergency surgery to stop excessive internal bleeding.

An investigating team constituted by the People's Union for Civil Liberties (NG was one of the team members) visited Jodhpur on March 2 and 17. The team interviewed the families of some of the women and studied documents given by family members.

What we do know

Hospital reports indicate that all the women died of excessive bleeding linked to various causes including severe infection, kidney failure, respiratory distress, pregnancy-induced hypertension, and premature detachment of the placenta.

These women came from poor backgrounds. Some of them might not have otherwise gone to a hospital. But they believed that they would get good care in a public hospital through the government's Janani Suraksha Yojana. The JSY is based on the premise that maternal mortality can be reduced only if women have access to effective emergency obstetric care and therefore encourages institutional deliveries by paying women cash incentives to have their babies in a hospital setting, as well as for transport in an emergency and for caesarean delivery if needed.

The government's response to the deaths seems to be haphazard and not based on a thorough investigation into the deaths. A total of seven investigating teams, including those from the state and central governments, the national human rights commission and the national commission for women, have visited the hospital but no final report has been made public. These teams are apparently unable to arrive at a conclusive statement on the causes of the deaths. When laboratory tests conducted in the hospital found bacterial contamination in a batch of the intravenous fluid used in the hospital, the manufacturer, the local distributor, hospital officials and drug inspectors were arrested but then released when the lab test was found to be substandard. Three new samples were sent to a "level 3" laboratory in Kolkata and one of these three was found to be contaminated. However, deaths have been reported among women admitted well after the suspect IV fluid was removed from circulation. A fumigation machine was ordered from Delhi, implying that standard disinfection practices at the hospital are insufficient. A team from the Post Graduate Institute of Medical Research (PGIMER), Chandigarh, gave a clean chit to the doctors and hospital, but on March 17, the state government suspended three senior doctors for supervisory lapses on the basis of a report by the divisional commissioner of Jodhpur (1-5). Based on the report of the central team, the Union Health Minister wrote to the state's chief minister on March 14 asking for a ban on private practice by government doctors (7) Indeed, one should ban such private practice. Government doctors seem to treat government facilities as a parking place to admit their patients, and do not take their official administrative and clinical duties seriously.

Some questions

While these teams have been unable to clearly identify the causes of these deaths, the general background in which they have occurred is a matter of concern. We must take note of the complex of factors influencing healthcare in hospitals like Umaid and MG: absenteeism among senior doctors who are meant to be on duty, the lack of cleanliness, and the poor quality of care.

These deaths also raise a number of questions.

First, are so many deaths in this time period uncommon in a tertiary women's hospital like Umaid Hospital? Or are these just routine? Did they just happen to catch the attention because of media reports? Umaid is a 200-bed specialty government hospital attached to the Dr SN Medical College. A number of well-qualified doctors are posted there and engaged in teaching medical students in addition to treating a large number of in-patients. The hospital has all the required equipment and facilities but it is poorly maintained, pathetically unhygienic and certainly a breeding ground for infections. There is no publicly available information on the record of post-surgical infections at the obstetrics/gynaecology departments of Umaid and MG hospitals. It is not known whether regular maternal death reporting and review processes are in place.

Second, on what basis did the authorities conclude that contaminated IV fluids were the immediate cause of these deaths? In addition to the 18 women who died, countless others were given the IV fluid of the same batch. According to the company's

statement, there were approximately 25,000 bottles of IV fluid of this particular batch. 5,000 were supplied to the three government hospitals and some shops in Jodhpur, Out of these, 2,800 were already consumed in the hospital. The remaining 20,000 were sent all over India. But the same reaction has not been seen elsewhere. These fluids were also used in other departments of the same hospital where no adverse event has been reported. Further, deaths were reported of women who were admitted to the hospital after the IV fluids were withdrawn.

Third, did the women get rational treatment? A review of available reports suggests that some of the procedures were not indicated. For example, it is a common practice in big hospitals like Umaid to give IV fluids even in an absolutely normal delivery. Likewise, not all the women may have needed caesarean sections and some of those interviewed by the PUCL team suggested that junior doctors may perform unnecessary C-sections in order to get experience in the procedure. What is the C-section rate of this hospital?

Fourth, were routine standards of infection control being followed in the first place? This is the same hospital at which, about one and half years earlier, a number of children with thalessemia were infected with HIV, and others acquired hepatitis, through blood transfusion (6).

Healthcare for India's poor

The deaths also highlight the larger context of healthcare in India.Most patients who go to government hospitals like Umaid and MG do so because they cannot afford the huge expenses of private hospitals but need the super-specialty services available at tertiary care centres. But they pay for services even in public facilities. Though all the women who died were from the poorer sections of society, their families ended up spending from Rs 60,000 to Rs 3.5 lakh. Many of them will have borrowed this money at very high rates of interest. The bulk of this money was spent on medicines. One young man spent Rs 3 lakh to save his wife but to no avail. He could manage the amount because he was from Jodhpur and because the extended community pitched in. One of the (injectable) drugs he was asked to buy, tigecyline, cost Rs 3,000 per vial. If this injection was required, the hospital's Medical Relief Society (Rogi Kalyan Samiti) should have underwritten the expense but did not do this. Instead the dead women's families have had to bear the financial burden, even in this public facility.

The Rashtriya Swasthya Bima Yojana, the government health insurance scheme, is non-functional in Rajasthan. But even if it worked, it has a piffling Rs 30,000 limit and that too for families below the poverty line (BPL). There is another scheme in Rajasthan - Mukhya Mantri Jeevan Raksha Kosh - where BPL card holders can be provided unlimited free medication. The families of two of the women who died had BPL cards but even these women were not provided free medicines. When a poor family does not have a BPL card the doctor in charge of the unit has the authority to waive the hospital's user fees and provide medicines free of cost. But this discretion in support of even the genuine poor is rarely exercised. It certainly was not exercised in the case of the women who died at the government hospitals in Jodhpur.

Another closely related question concerns the high prices of medicines. Many essential drugs escape the National Pharmaceutical Pricing Authority's price control net. Despite the government of Rajasthan's strict orders, doctors and hospital staff prescribe very expensive, branded medicines though far cheaper generic versions from the same companies are available.

Further, in the absence of any prescription audit, it is a rampant practice amongst doctors to prescribe unnecessary and expensive medicines. Some of the women were administered the drug tigecyline which cost Rs 3,200 per vial. While there are no cheaper versions available of this drug, was there a less costly alternative? In any case, we need a strong national policy on antibiotic usage.

Government policies: adding fuel to the fire

It is also common knowledge that many government doctors, especially senior doctors, are engaged in private practice after hospital hours. A large number of patients wait at these doctors' residences to consult them for a fee. The Rajasthan government allows government doctors to carry on private practice at their residence. This is a major cause of neglect of patients admitted in the government hospital because in an emergency government doctors are not available. Even during hospital hours, these doctors tend to care for those who have visited them during their private practice and paid fees. One major finding of the central government team which visited Jodhpur to investigate the maternal deaths was that surgical interventions were done by the junior doctors in the absence of the senior doctors. This team reportedly also commented on the poor standards of teaching. It raises doubts as to whether parameters of quality and treatment protocols are ever followed in this hospital.

The incident also shows the lack of wisdom in propagating institutional deliveries using the carrot of money in the Janani Suraksha Yojana (JSY), the national scheme to reduce maternal mortality. The JSY has been introduced without proper preparation of hospitals at the district and taluk levels for such emergencies. Such preparation requires qualified and competent personnel and a functioning infrastructure within the hospital, as well as suitable access to it. This is one reason why, across the country, with the possible exception of Tamil Nadu and Kerala, maternal mortality seems to have increased after implementation of this institutional delivery policy. The policy has also deskilled auxiliary nurse midwives, some of whom were earlier conducting deliveries at the subcentres (no longer recognised as institutions in the JSY scheme) and marginalised traditional *dais*. The most vulnerable women in society are being made to abandon the tried and trusted system of *dais* and opt for a more modern system

though the elements are not in place that will assure quality of care in this modern system. This is a letdown of the worst kind. Further, the focus on institutional delivery has come at the risk of neglecting antenatal or postnatal care.

Ensuring accountability at the top

The PGIMER panel, which visited the hospital on March 14 and March 15, 2011, did not find fault with the doctors and reportedly confirmed that it was indeed contaminated ringer lactate intravenous fluids that caused the deaths since February 13 at the hospital. Nevertheless the very next day, three doctors were suspended (7). It is unclear on what basis the doctors have been suspended. Without a proper understanding of the problems involved, such an action seems to be an attempt to give the appearance of action instead of really addressing the issues. And then why only these three doctors? What about the medical superintendent? What about the medical college principal who is the head of all the hospitals in this group? Or even the health secretary, or the health minister? Nevertheless, the suspension will be salutary if it is followed by appropriate improvements in the delivery of quality healthcare and also in procurement and storage procedures being done systematically and with transparency, in these hospitals and everywhere else in Rajasthan's public hospitals.

There have also been arrests of the manufacturer, the local distributor, the drug inspector and the hospital storekeeper, as well as the trader who contracted with the hospital to supply the products of specified companies - though, curiously, the IV fluid in question was not one of the products approved in the contract. The Indian Penal Code's Section 328 (putting a person's life under threat) applies to all the actors in the system, not only the manufacturer and the local distributor. Likewise, the company under whose license the IV fluid was manufactured should also have some responsibility.

One does not know how these suspensions and arrests will eventually pan out. Probably everybody will be back in business in a few months, as happened after the children were transfused HIV-infected blood, public memory being short. Regardless of what the investigations finally conclude, there is a need for a stricter process for checking IV fluids and parenterals in general; both the drug authorities and the company itself should be picking up random samples more frequently. Loan license of parenteral manufacturing facilities, as well as loan license and contract manufacturing in general, should be stopped.

The reaction of drug authorities at the higher levels would be to increase the quality norms by requiring more costly equipment and infrastructure. Schedule M certification (the top quality certification in the country awarded by the Drugs Controller General of India) was supposed to certify a company's quality norms in production. Missed in this effort to improve quality by adding new technology is the art of how to produce aseptic facilities and good quality medicine with optimal technology. More technology or more equipment is not the answer, as one tends to sacrifice basic commonsense about asepsis at the altar of technology.

An initial fact-finding report indicated that six of the 14 women (later the number climbed to 18) may have succumbed to "pre-existing medical conditions and natural causes." (5) If this is so, we must ask why the system did not have procedures in place to alert doctors to take additional precautions. If these pre-existing diseases cannot be managed in a tertiary level hospital like Umaid, where else can such women go? This is the second biggest women's hospital in the state of Rajasthan and equipped with all facilities.

The message has to be sent to all that most maternal deaths are preventable. And institutional delivery is only one of many indicators of maternal healthcare. Concerns about the quality of maternal healthcare start from the day that a woman conceives, actually even before that. This is about how important the health of women is considered across the life of a woman.

The affected families in Jodhpur - and other potential future users of the health system - would like to know what systems and procedures will be put in place so that a repeat of the tragedy will not occur, adding to the statistic of the 80,000 maternal deaths every year in India. Till then the health rights of women and children - guaranteeing the availability, accessibility, acceptability and quality of such health services - stand violated.

Note: Narendra Gupta visited the hospital as part of an investigating team from the People's Union for Civil Liberties. This comment draws on information gathered in interviews with some of the bereaved families and discussion with the divisional commissioner, Jodhpur.

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