**Assessing factors associated with Caesarean Sections in urban Nepal: a hospital-based study**

Date of interview: …2021-09-22………………

Interviewer:…Susagya Bhusal………………

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| Name of hospital |  Public Hospital |
| Position | P7 |
| Qualification |  MBBS, MD on Obstetrics & Gynecology |
| Number of years in position |  5 years |

**Hospital services**

1. **What major maternity services do you provide to pregnant women at this hospital? Probe: Antenatal care, Normal and complicated deliveries/ CS?**

This paropakar maternity hospital is a tertiary care center as well as referral center where 20-24 thousand deliveries are conducted, gynecology and obstetrics related services rest of the other services like IVF, infertility related services, urogyano service, every year. From this hospital not only the maternity oncology service, cervical cancer screening, but services for gender also based voilence victim through one step crisis management, family planning services, comprehensive abortion care, we provide multicenter services. This is one of the largest hospital of government of Nepal.

1. **What kinds of health education do you provide to pregnant mother?**

**Probe: Risks and benefits of CS/advantages of normal deliver?**

When it comes to giving health education to pregnant women I provide health education not only as a doctor but also as a woman. Keeping the concept that when I was pregnant I would have been better if I had got that much information. Firstly, I tell pregnant mother to stay pleasant because when the baby is conceived due to hormonal changes hormone imbalance, depression , negative thoughts come every time so that I tell them to overcome that because if mother is happy then only baby become happy. Similarly, we tell them to avoid junk food, drink clean water, because if they catch jaundice , diabetes it will be problematic. In the first trimester, there may be vomiting, headache. If vomiting occurs, you can take anti-vomiting medicine. If you have a fever, you can take cetamolol. It has no effect, even in covid context we tell them all such things. Similarly, in the second trimester, a congenital scan had to be done. Anomaly scan had to be done in 5 months because it is a tertiary center every kind of patient those from low to middle class come over here it is difficult for us to take money from them. However, we tell them to do compulsory congenital anomaly scan in 5 months, have TT vaccine, intake calcium. Similarly, we tell patient that in the third trimester if there is less fetal movement, water flow, if excessive pain then patient should come immediately to the hospital. We have a government program called birth preparedness. There are a lot of patients, so we can't counsel everyone, but we also have nursing students who are counseling about birth preparedness. We also have a door to door visit program of the government that also talks about birth preparedness. Apart from that when the patient visit hospital in her 37/38 weeks we counsel them to try vaginal delivery if everything is normal. We recommend them for CS only in indicated cases like previous CS, breech presentation.

1. **What are the advantages and disadvantages of doing CS in this hospital?**

**Probe: For hospital, for staff**

There are mainly disadvantages of doing CS for both mother and baby. In normal delivery patient can go home within 24 hrs of delivery but if it is CS then patient need extra support to come in normal form. After CS there is high chance of getting another CS no matter how much we promote normal delivery in the previous CS case it is little difficult to give normal birth. Hospital stay of patient would be more like 5-7 days, bed occupancy high, there is chance of wound infection, because of long hospital stay there is high chance of developing hospital acquired symptoms for mother and baby too. Our main aim is to deliver baby quick and send patient to their home quickly in this covid context. We do not promote long hospital stay of the patient. In this COVID context, we need to maintain distance. So, it would be better if vaginal delivery is done because in CS there is lots of disadvantage for patient like pain, bed ridden, wound infection, and other complications. The patient who came from remote area wants normal delivery despite her indication is for CS.

1. **If someone cannot afford CS, how does the hospital handle? Probe: Poor fund/referral**

CS is under the safe motherhood package of government in the hospital CS is free for every patient those who stay in general ward but in the case of the cabin ward patient have to pay for it.

**Reasons of rising CS**

1. **What is current rate of CS in this hospital? How does his CS rate compare with other hospitals?**

Recently CS rate is high in this hospital which is 30-40% whereas previously it was 15%.The main reason behind increase of CS rate in this hospital is, it is referral center. During the covid pandemic what happen is that other hospital denied taking patient and we have other wings for Covid-19 related case treatment. In comparison to other hospital this rate is less, 30% is adaptable but nowadays previous CS rate is high and we don’t have VBAC system in our hospital as it need intensive monitoring one patient need 3 staff because monitoring is difficult, so we don’t promote VBAC over here.

1. **What are the main reasons for a high rate of CS in this hospital? Probe: Medical reasons, socio-demographic reasons, non-medical reasons?**

I think the answer to this question is covered above, as this hospital is a referral center, other is because of high patient flow rate, and there is previous CS in private hospitals. Every hospital has a high CS rate due to this reason the CS rate of this hospital is high.

1. **What proportion of pregnant women or family asking for CS delivery? Any particular groups are demanding CS?**

Doctor, nursing staff and there is a category of people who want only two children. Those who can’t tolerate pain demand CS usually we don’t promote CS. Nowadays if there is cord round neck patient demand CS thinking that their might occur some complications. Another is working women, educated one demand CS rather than uneducated women they want CS.

 **8. What are the main reasons for your patients demanding CS?**

We look at the indication rather than the demand of the patient, here we do not do CS according to the demand of the patient. Even if the demand of the patient is under the indication, we do not do so. If we do cs as per the demand in such a general hospital, we will be out of bed. In some cases, someone can go for normal, but we cannot give a trial. In such cases we do CS according to patient demand, also in the case of eclampsia, preeclampsia we do CS. We don't do CS when patient demand CS as soon as they come to the hospital.

 **Decision making on CS**

**9 . Who are the most important persons in making decision regarding CS service at this hospital? Probe: who are usually consulted before surgery?**

One is with patient themselves, junior doctors, and the other is head consultant doctor of examiner group.

**10. How is the decision to perform CS made? Probe: For emergency/elective CS?**

As I already said elective CS are already known elective indications like Type 2 diabetes, placenta previa, severe pre-eclampsia, IUGR baby, already known oligohydramnios, breech presentation, CPD, non-progressive labour, they fall under elective criteria. Regarding emergency CS we first assess the patient if there is CPD, non-progress of labour, fetal distress, abruption placenta, eclampsia, PV bleeding, oligohydramnios, non-reactive CTG, in such cases we do CS.

**11. How do you involve pregnant mothers/family in decision making on CS? What role do mothers could you cite some examples?**

Yes, we involve patient just like you take consent while taking the interview we also take consent. Years back one incident had happened here, we took 2 consents before doing CS with patient, but patient party alleged us . So, we also take consent with patient husband, relatives who play decision making role before doing CS.

**12. Have you come across instances when a patient demands CS?**

 Yeah, sometime patient demand but we only do CS in indicated cases.

**13. What information do you provide to the women who are undergoing CS? Probe: risks & benefits of CS? Advantages/disadvantages?**

After doing CS, if everything is completely fine, after 8-12 hrs, we start liquid, start movement of patient and breastfeed. We tell more mobilized; the better will be. We tell to take care of wound, breast care, we also do family planning counselling.

**Adherence to guideline or protocol**

**14. Is there are protocol for performing CS that is followed at this hospital? Can I please have a copy of the protocol?**

Yes, we have made an evidence-based protocol , the only protocol that does not comply is VBAC because monitoring requires more human resource, monitoring is difficult to do so VBAC is not in our protocol. Written protocol is there but it is not finalized yet.

**15. What is the policy on breech? Probe: Is trial of labor given?**

In primi breech we mainly do CS. If there is induction, CS is not done, but if patient comes in labor, if it meets the criteria, then we do vaginal try, but we do CS in primi breech.

**16. What is the policy for mothers with previous CS? Probe: Is vaginal delivery offered/tried [VBAC]?**

I have already said that our hospital does not have VBAC protocol. According to the protocol, there is no chance of VBAC. We are trying to decrease one CS but because of lack of monitoring there is risk, after placing a women for a VBAC woman should be closely monitored and for CTG one staff should be made ready. 100 patients are admitted daily where 70-80 deliveries are conducted daily but staff is not in the same proportion. So that, it becomes difficult to do VBAC. If some come with 6-7 cm open normal vaginal delivery is performed.

**17. Is there any system for audit of CS?**

Yes there is a system of audit. In our everyday morning conference, how many deliveries have taken place, how many CSs have been indicated, how many perinatal deaths have taken place, how many neonatal sepsis have taken place, there is a kind of audit going on every day.

**18. What polices, guidelines and tools have contributed towards better CS service provision? Why and how have these made a difference?**

One is the ROBSON criteria which is just coming up, another there are SBA tools, there are reproductive health guidelines, it serves better CS. Plus we have trained advanced SBAs not only 27 course skills, we also teach them emergency laparoscopy CS, PPH management. This is a training site also, so we produce SBA, advance SBA. In remote areas after delivery there is not even the facility to do suture , there is lack of monitoring, knowledge is also lacking. Those who know how to do, then providing services, If there is facility, but no staff. RH protocol has SBA training guidelines, which states which condition requires CS, how to manage labour, Next is Reproductive Health (RH) protocol in RH protocol RH guideline is forming, ANC PNC guideline were also formed yet Nepali version is yet to come. If proper counseling is done at ANC period, if birth preparedness is discussing well, mode of delivery, site of delivery, then vaginal delivery will be promoted. If ANC, PNC guideline, and RH protocol are followed properly then I think CS rate will be decrease in near future.

**Barrier and strategies to reduce CS rates**

**19. What are the main challenges to reduce CS rate? Why?**

I think the main challenges are previous CS, nowadays patients are making 1or 2 baby so the demand CS to avoid risk. Next is doctor and patient ratio, proportion of service providers is less than service receiver due to this reason we are not able to prove VBAC. Next is doctor stress, doctors are in stress because of many factors, many cases security wise , they are afraid of consequences if something wrong happened to the baby, so they prefer CS in so. Main challenge is proportion of doctor/nurses with proportion of patients, so if trained midwife, SBA trained personnel are mobilized in every remote as well as urban then this may help to reduce unnecessary CS rate. Another important reason behind increase CS rate is sometime false positive of CTG. We need to do CTG but sometimes it shows false positive.

**20. How can we reduce unnecessary CS in this hospital/Nepal? Probe: From the health system/hospital/health personals, From the community/women/family**.

First is motivation to the patient for the normal delivery. If the first baby delivers vaginal then it would be better. If the first baby has previous CS, then there is a good chance of getting CS later. In my experience, if women are motivated to try their vaginal delivery first, they will agree. We have a little bit of community counseling defaults. Even if women are motivated by the people who live with them, mothers who visit for antenatal care are provided iron tablets, but we don't have mass counseling. I think Counseling plays an important role. If mass counselling is done properly then we can reduce unnecessary CS.

**21. What kinds of policies/strategies to be made or reformed to use CS appropriately in this hospital/Nepal? What would you like to do for rational uptake of CS at this hospital?**

By taking the ROBSON protocol and analyzing all the hospitals indication for CS This should be applied in private as well. Going private is the private choice of the patient but ROBSON criteria which is universally accepted and approved by WHO. Now there is also a burning need to know why the CS rate is high. The root cause also comes from the criteria and if the main cause of CS is found then we can reduce the unwanted CS.

**22. How could you improve normal physiological birth in low-risk mother and baby?**

It is not needed to say for this hospital because here we do is only emergency CS, in the maternal request case we only do it there is need. Otherwise, we usually promote normal vaginal delivery. What we need to do is we should not promote on-demand CS. If we can promote VBAC then it would be better, also it will be better. iI we start painless delivery then on-demand CS rate will be decrease. If staffing pattern and monitoring is done properly then we can promote normal delivery.

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