SHORT COMMUNICATION

Revisiting the Obstetric Flying Squad

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Summary

The obstetric flying squad has been used in obstetric practice since 1933 to manage obstetric emergencies occurring in domicilliary practice. It has often been criticised in such situations as only delaying effective treatment to the patient. We have introduced the obstetric flying squad in an urban setting to cater for obstetric emergencies occurring in private practice. This service has been used on ten occasions since its inception without any maternal deaths being recorded or any delay in the provision of emergency care. The flying squad has led to closer cooperation between the government and private sectors in providing obstetric care.

Key Words: Obstetric flying squad

The obstetric flying squad was introduced in 1933 for the management of obstetric emergencies[1]. This service has been available in selected hospitals in Malaysia since the last three decades and caters for domicilliary deliveries, especially so in the East Coast of Malaysia. In 1971, Menon described his experience with this service in Kuala Terengganu. In spite of limited facilities and many difficulties, Menon felt the squad played a vital role in reducing maternal mortality[2]. Changing trends and circumstances have brought about the need for a reappraisal of the role of the traditional flying squad in the urban setting. Seremban Hospital's obstetric emergency squad was established with a varied objective to the traditional flying squad.

The obstetric emergency squad in Seremban was first mooted in early 1997 after an unfortunate maternal death. This death of a mother who delivered at a private clinic was attributed to inadequate as well as delayed resuscitation and miscommunication as to the availability of blood between the referring doctor and the hospital staff. The obstetric emergency squad was established as a recommendation of the state maternal mortality committee to serve the needs of the private obstetricians in Seremban district.

The main objective of this service was to provide a quick and efficient transfer of seriously ill cases from private centres to the hospital. The service could be utilised by the private obstetricians in the Seremban district for referral of patients with antepartum and post-partum haemorrhage, eclampsia, severe pre-eclampsia as well as for intrapartum collapse.

The obstetric flying squad was staffed by the medical officer or specialist and a nurse together with the ambulance driver and attendant. The team would leave the hospital with the necessary equipment, which included drugs for resuscitation, aids for manual ventilation and, very importantly, two units of safe O blood (blood with low antibody titre).

All private hospitals and maternity clinics in Seremban district are covered by this service. The radius of the area covered is about 15 kilometers and there are nine clinics in this area. The average time taken to reach any private centre was 18 minutes. The longest time taken for retrieval of these patients to the hospital was 53 minutes from the time of the initial call. This time taken to reach the patient is acceptable and comparable to other studies when patients were transferred by air[3].

Since the squad was established in 1997, there have been ten occasions when this service was required. This made the call out rate 0.62/1000 deliveries. Eighty per cent of calls (8 out of 10) were secondary to hemorrhage. This was similar to surveys conducted in Malaysia[2] and the western world[4]. Fifty per cent of these women were in shock and of these 6 out of 8 (75%) required blood transfusion before transfer to the hospital. There was one patient with postpartum hemorrhage who was not in shock but appeared very pale and she was transfused blood prior to transfer to hospital.

The traditional flying squad had a different objective of catering for domicilliary obstetric practice[1]. An article published recently regarding the obstetric flying squad in the Malaysian setting also described its use for domicilliary obstetric practice[5]. In modern obstetric practice there has been a marked decline in the use of obstetric flying squads for this purpose.

Seremban Hospital's initiative is the first such flying squad in Malaysia intended to cater for the private sector. With the implementation of this service, there has been closer rapport between the private and the government sectors in the Seremban district. A regular four monthly meeting between the two sectors is held where the cases utilising this service are reviewed and ideas are exchanged. There have been no maternal deaths in this series.

The obstetric flying squad has been feasible in this urban area as no clinic is more than 30 minutes by ambulance from the referral hospital. Private specialists in this town have solo practices and often do not have access to help from other private sector colleagues even in hospital practice. There is also a paucity of intensive care facilities and specialists in this town.

There has always been a medical officer with sufficient training in Obstetrics and Gynaecology and often a specialist to attend to this squad. It has been said that the best person to deal with an obstetric emergency in an unfamiliar surrounding is an experienced obstetrician and not allied health personnel[3]. This has proven to be true in our situation where no problems have been encountered during retrieval of patients.

Table I
Cases Utilising The Flying Squad Service

Case	Diagnosis	Condition of Patient	Resuscitation	Treatment in Hospital
1	Failed intubation	Stable	None	LSCS under regional anesthesia
2	PPH secondary to atonic uterus	Stable	Ivfluids & 80 units oxytocin	Blood transfusion
3	APH with IUD	Stable	IV fluids	Induction of labour & SVD. Blood and products
4	PPH with cervical tear	Shock	Blood transfusion	EUA & repair
5	PPH & DIVC post LSCS Hysterectomy done	Shock	Blood transfusion	Relaparotomy. Blood and products.
6	PPH with atonic uterus	Stable but very pale	Blood transfusion & oxytocin infusion	EUA
7	Pulmonary odema post LSCS	Stable	None	Refused hospital transfer
8	PPH with cervical tear	Shock	Blood transfusion	EUA and repair
9	PPH with atonic uterus	Shock	Blood transfusion	Bruce-Lynch suture
10.	PPH with atonic uterus	Shock	Blood transfusion	Uterotonic agents, blood and blood products

Some squads have managed without blood facilities available at site. Resuscitative means were by using colloids and crystalloids[2]. The availability of blood has proved to be useful in our experience as hypovolemic shock secondary to blood loss was easily corrected in our patients. Blood banking facilities were found to be lacking among the private maternity clinics in this area.

The establishment of a similar Obstetric Flying Squad would be a good initiative for hospitals frequently receiving ill cases from the private sector. This service, among other measures, has also contributed to Negeri Sembilan showing the sharpest decline in the maternal mortality rate in the country. This Obstetric Flying Squad is an example worth emulating to foster closer cooperation among the government and private sectors in Malaysian obstetric practice.

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