SHORT COMMUNICATION

# Rising Caesarean Section Rates in Public Hospitals in Malaysia 2006

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**SUMMARY**

**The caesarean section rate in Malaysian public hospitals has increased to 15.7% from 10.5% in the year 2000. There are inter-state variations in the rate ranging from a high of 25.4% in Melaka to 10.9% in Sabah. The West Coast states generally had a higher caesarean section rate than the East Coast states as well as East Malaysia. It would be prudent for Malaysia to implement stringent caesarean audits to ensure that rising caesarean section rates are kept in check.**

**KEY WORDS:**
*Caesarean section rate, Public hospitals, Malaysia*

Caesarean section is the most common major surgical procedure performed in pregnant women. Historically, caesarean delivery has evolved from a perimortem procedure to a routine one sometimes performed for no maternal or fetal indication, otherwise known as caesarean section on request or demand.

There was an earlier report on the caesarean section rates in government hospitals in Malaysia for the period 2000 to 2001[1]. The caesarean section rate in 2000 was 10.5% and the rate in 2001 was 11.1%. The purpose of this report was to determine the rate for 2006 and to depict the variations by states in the caesarean section rate for Malaysia in public hospitals.

The statistics are obtained from the Health Management Information System (HMIS), a computerised records system that captures the discharge diagnosis of all patients from public hospitals under the Ministry of Health, Malaysia.

Caesarean section rates have crept up over the last six years to reach 15.7% from 10.5% in the year 2000 (Table I). Variations in caesarean section rates among the different states in Malaysia still remain. Melaka remains as the state with the highest caesarean section rate in Malaysia where one in four were delivered by caesarean section. States that have a caesarean section rate higher than 20% are Melaka, Federal Territory, Negeri Sembilan and Perlis. Perlis has shown a doubling of the rate in the last six years. Selangor is another state that has doubled its rate. No state in Malaysia has a rate in the single digit and similarly none showed a drop in caesarean section rates over the six year period. Generally the East Coast states and East Malaysia have lower caesarean section rates compared to the rest of Malaysia.

A detailed study would seem to be in order to analyse the reasons for the rise in caesarean section rates. Some possible reasons could be the active management of labour using the partogram, change in practice of the management of breech presentations, loss of the skill for instrumental deliveries, medico-legal concerns and the rise in patient requested caesarean sections.

The caesarean section rates in most countries are increasing. In the United States, the rate was quoted as 29% in 2004. Comparative rates for the same year for the United Kingdom were 22.4%, Germany 25% and Australia 29%[2]. Evaluation of factors associated with the increase in caesarean section rates has been carried out in several countries. These studies have demonstrated that some of the difference in caesarean section rates observed can be explained by changes in the demographic characteristics of the child bearing population. For example where women are delaying childbirth and having fewer children, the average age of women giving birth and the proportion having a caesarean section in their first pregnancy has increased. There is no available data locally to postulate that this is the case in Malaysia.

There have been concerns in Malaysia about patient requested caesarean sections. No detailed data are available for Malaysian women. A survey in the United States in 2005 among 1,600 participants reported that only one woman had requested a planned caesarean section at her own request with no medical reason[3]. Those who had looked at this question in other countries have found similar results. However, another audit in the Chelsea and Westminster Hospital situated in an affluent are of London indicated 14% of elective caesarean sections were due to maternal request alone in 1999. Perhaps a local survey would be timely to assess the situation in Malaysia.

It would be timely at this juncture to state that the best outcome for mothers and babies appear to occur with caesarean section rates of 5% to 10%. In 1985, the World Health Organisation issued a consensus statement that caesarean section rates above 15% seem to do more harm than good[4].

The extent to which this surgery is employed by obstetricians in different countries suggests that different obstetricians and the societies in which they practice have different practice guidelines and expectations as to when caesarean section is indicated. It also suggests that other factors such as the socio-economic status of the woman, the medico-legal

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**Table I: Caesarean section rates in public hospitals by state and year**

| State | 2000 | 2001 | 2006 | | |
|---|---|---|---|---|---|
| | Caesarean section rate (%) | Caesarean section rate (%) | Caesarean sections | Total deliveries | Caesarean section rate (%) |
| Perlis | 11.2% | 10.0% | 820 | 4086 | 20.1% |
| Kedah | 10.4% | 12.4% | 4903 | 27264 | 18.0% |
| Penang | 12.5% | 14.3% | 2510 | 14436 | 17.4% |
| Perak | 13.1% | 12.7% | 5427 | 28081 | 19.3% |
| Selangor | 8.7% | 10.8% | 6714 | 40429 | 16.6% |
| Federal Territory | 15.5% | 15.7% | 5339 | 22657 | 23.6% |
| Negeri Sembilan | 12.8% | 15.2% | 2752 | 13219 | 20.8% |
| Melaka | 20.5% | 22.3% | 2501 | 9866 | 25.4% |
| Johor | 12.0% | 12.4% | 6762 | 45032 | 15.0% |
| Pahang | 12.8% | 10.8% | 3168 | 20868 | 15.2% |
| Terengganu | 7.0% | 7.6% | 2033 | 18250 | 11.1% |
| Kelantan | 6.8% | 7.5% | 2806 | 24464 | 11.5% |
| Sabah | 8.2% | 7.4% | 4694 | 43146 | 10.9% |
| Sarawak | 7.9% | 8.0% | 4281 | 36553 | 11.7% |
| Total | 10.5% | 11.1% | 54710 | 348351 | 15.7% |

environment, women's expectations and convenience for both the obstetrician and the woman may sometimes be more important than obstetrical factors in determining the decision to operate. It is possible that inter-state differences in these factors may also be operating in Malaysia to account for the variations in caesarean section rates.

It would be prudent for Malaysia to implement stringent caesarean audits to ensure that rising caesarean section rates are kept in check. Caesarean section audits need to be robust and will serve as a forum for every surgeon to justify the surgery. No surgeon will want to appear lacking in any respect in front of his or her colleagues.

There has also been recent experience with the issuance of a Director-General of Health's circular about the practice of episiotomy which has succeeded in bringing down the episiotomy rate to below 30% in many public hospitals. A similar directive with monitoring using appropriate indicators and a classification system such as proposed by Robson[5] may succeed in lowering the rates in public hospitals.

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