



A survey of the use of regional anaesthesia for caesarean sections in level 1 and 2 hospitals in the Free State

To the Editor: One of the key recommendations of the *Second Report on Confidential Enquiries into Maternal Deaths in South Africa 1999 - 2001*, was that regional anaesthesia (RA) 'should be promoted in all sites performing caesarean sections' (CSs). A target was given for 75% CSs to be performed under RA.¹

We wished to know the extent to which RA was being used in the Free State and at which hospitals. This was so that institutions where the 75% target was not being achieved could be identified and measures then considered, where appropriate, to achieve the recommended target.

The study was retrospective and identified the types of anaesthesia administered to patients receiving a CS in level 1 and 2 hospitals in the Free State, from 1 September 2002 to 30 November 2002. The study method was to visit each hospital in

December 2002 or January 2003 and retrieve the information from theatre record books.

In our results, both spinal and epidural (only 4 patients) techniques were recorded as RA; patients who required a general anaesthetic due to a failed spinal were also recorded under RA, as at least this had been attempted.

The results were as follows. During the 3-month study period, CSs were performed in 19/24 level 1 hospitals and all 5 level 2 hospitals in the Free State. A total of 1 734 CSs were performed. For 5 patients there was a failure to record the type of anaesthesia. Of the remaining 1 729 CSs, 1 231 (71.2%) were performed using RA.

The data for each hospital are presented in Table I.



Table I. Types of anaesthesia administered for caesarean sections in Free State level 1 and 2 hospitals from 1 September 2002 to 30 November 2002 (new names of hospitals in brackets)

Level	Name of hospital	RA	GA	Total	Not recorded	% RA use	95% CI
1	Bothaville (Nala)	0	17	17	0	0	0; 19.5
1	Jagersfontein (Diamond)	0	8	8	0	0	0; 36.9
1	Ladybrand (Mantsopa)	0	13	13	0	0	0; 24.7
1	Winburg	0	9	9	0	0	0; 33.6
1	Odendaalsrus (Thusanong)	5	76	81	0	6.2	2.0; 13.8
1	Heilbron (Tokollo)	2	26	28	0	7.1	0.9; 23.5
1	Clocolan (John Daniel Newsberry)	3	15	18	0	16.7	3.6; 41.4
1	Frankfort (Mafube)	15	23	38	1	39.5	24.0; 56.6
1	Sasolburg (Metsimaholo)	64	44	108	0	59.3	50.0; 68.5
1	Harrismith (Thebe)	29	16	45	0	64.4	48.8; 78.1
1	Senekal	11	3	14	0	78.6	49.2; 95.3
1	Moroka (Dr J S Moroka)	45	11	56	0	80.4	67.6; 89.8
1	Reitz (Nketoana)	15	3	18	0	83.3	58.6; 96.4
1	Bothshabelo	111	11	122	0	91.0	84.4; 95.4
1	Ficksburg (Phuthuloha)	20	2	22	0	90.9	70.8; 98.9
1	National	26	2	28	0	92.9	76.5; 99.1
1	Parys	20	1	21	0	95.2	76.2; 99.9
1	Phekolong	23	0	23	0	100.0	85.2; 100
1	Virginia (Katlheho)	1	0	1	0	100.0	*
2	Manapo (Mofumahadi Manapo Mopeli)	139	58	197	0	70.6	64.2; 76.9
2	Goldfields (Bongani)	162	60	222	0	73.0	67.1; 78.8
2	Bethlehem (Dihlabeng)	90	23	113	0	79.6	72.2; 87.1
2	Boitumelo	123	22	145	2	84.8	79.0; 90.7
2	Pelonomi	327	55	382	2	85.6	82.1; 89.1
	Total	1 231	498	1 729	5	71.2	69.1; 73.3

* Cannot be calculated.

RA = regional anaesthesia; GA = general anaesthesia.

Overall we found that the 75% RA use target was achieved in 3/5 level 2 hospitals (60%) and 9/19 (47%) level 1 hospitals in the Free State.

It was noted that there were 6 hospitals in which RA is not used, or rarely used (< 10% of cases). In one of these, Odendaalsrus, a relatively large number of CSs were performed (81 cases).

This is the first survey we are aware of that has quantitatively investigated which type of anaesthetic is used for CS in South Africa. The information obtained is being used to help us construct training programmes in RA, aimed at those institutions where RA is being relatively underutilised.

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1. Pattinson RC, ed. *Saving Mothers. Second Report on Confidential Enquiries into Maternal Deaths in South Africa 1999 - 2001*. Pretoria: Department of Health, 2003.