

# The cost of treating serious firearm-related injuries in South Africa

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*'Life has no prize, but life has a cost'*  
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## Aim

To determine minimum in-patient cost of treating abdominal Gunshot wounds (GSW) in GF Jooste Hospital (GFJH), a SA state hospital.

## Methods

We analysed 23 consecutive laparotomies for abdominal GSW (October 2002-April 2003).

The cost analysis was based on five variables:

- Operating theatre time (24 ZAR per minute)
- Duration of hospital stay (518 ZAR per day), including High Care Unit (1384 ZAR per day)
- Therapy i.e. pharmaceuticals and blood products (ZAR per unit; SABTS official prices)
- Laboratory services used (ZAR per unit; SANLS tables)
- Diagnostic imaging studies performed (ZAR per unit)

## Results

21 patients were treated at GFJH until discharge, 2 patients were transferred to other hospitals and not included in the present study. No patient died. One patient needed relook surgery. On average, each victim cost the state health service 10 269 ZAR.

Average cost per variable, expressed as a percentage of the total cost (chart 1)

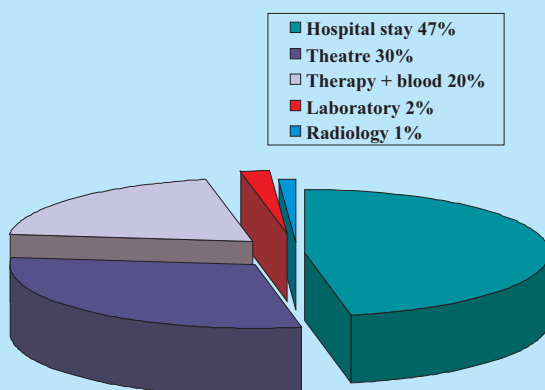


Table 1: Cost analysis per variable (n=21)

	Basic minimum cost (ZAR)					TOTAL
	Operating theatre	Hospital stay	Therapy and blood products	Laboratory services	Imaging studies	
TOTAL	65282	102375	42567	3836	1561	215621
Mean + std. dev.	3108 + 1358	4872 + 3087	2030 + 2842	182 + 329	77 + 154	10269 + 6888
Median (range)	2877 959 - 6482	4144 1351 - 12614	602 77 - 9975	28 0 - 1449	42 0 - 735	7742 2121 - 30415

## Discussion

- Based on the findings of this study, patients are being treated in a cost-effective manner.
- Average cost of 10 269 ZAR still underestimates the total in-hospital expense per patient (Table 1)
- This figure represents an amount 13-fold greater than the annual per capita government expenditure on health in SA in 2001 (Table 2).

Table 2: Annual per capita expenditure on health

	Per capita expenditure on health per annum (ZAR)	
	Total expenditure	Government expenditure
Top five developed world countries		
United States of America	34209	15176
Switzerland	26418	15022
Canada	15141	10430
United Kingdom	12845	10556
Australia	12187	8722
Top three African countries		
South Africa	1554	742
Botswana	1330	749
Namibia	770	609

## Conclusion

Each surgical treatment for Gunshot wound of the abdomen costs the state health service a total of over 10200 ZAR, a figure 13-fold greater than the annual per capita government expenditure on health.

*'Outer disarmament can only take place through inner disarmament. If the individual doesn't become more peaceful, a society that's the sum total of such individuals will never become peaceful either'. The Dalai Lama*