

SANS 444:2014: A new standard for small-ampoule labelling and a chance to reduce drug administration errors in South Africa

To the Editor: Drug administration errors remain a hazard in operating theatres and other clinical areas in healthcare facilities worldwide.^[1] A prospective study published in 2009 involving over 30 000 anaesthetics at three South African (SA) academic institutions confirmed that drug administration errors by anaesthetists are common.^[2] In the study, the incidence of either a drug administration error or a near miss was 1:274 anaesthetics. The most common cause of error (36.9%) was drug ampoule misidentification, and of these errors the majority were due to similar-looking ampoules. Although there were no deaths due to drug errors in the study, a previous survey into drug administration errors by SA anaesthetists revealed that more than 94% of respondents had made a drug error and that in a minority of cases the error caused death or non-fatal cardiac arrest.^[3] These figures are similar to those published in the international literature.^[1,4]

A significant step towards improving drug administration safety is the 2014 publication of a new South African Bureau of Standards (SABS) standard for ampoule labelling.^[5] The key feature of the new standard is that labels will be much more legible in the clinical arena. The standard focuses on font size, text legibility and orientation, text contrasts, ordering of label content, and language. It mandates the use of the generic name of the drug on the label and states that, if used, the trade name may not exceed the size of the generic name. To create space for clearer labelling on small ampoules, English is now the only mandatory language. The standard also recommends that where applicable, manufacturers should on part of the label utilise the colours specified for identifying specific drug classes on syringe labels, as per the SABS standard (South African National Standards) SANS 26825.^[6]

This new SANS standard should decrease the risk of drug substitution errors if adopted by the pharmaceutical industry, and by national professional bodies, hospital groups and the national and provincial departments of health as a key standard to their drug ordering strategies.

Anthony R Reed

Head of Clinical Department, New Somerset Hospital, Cape Town, South Africa, and Senior Lecturer, Department of Anaesthesia, Faculty of Health Sciences, University of Cape Town
anthony.reed@uct.ac.za

Peter C Gordon

Emeritus Associate Professor and Part-time Senior Lecturer, Department of Anaesthesia, Faculty of Health Sciences, University of Cape Town, South Africa

- Merry AF, Shipp DH, Lowinger JS. The contribution of labelling to safe medication administration in anaesthetic practice. *Best Pract Res Clin Anaesthesiol* 2011;25(2):145-159. [http://dx.doi.org/10.1016/j.bpa.2011.02.009]
- Llewellyn RL, Gordon PC, Wheatcroft D, et al. Drug administration errors: A prospective survey from three South African teaching hospitals. *Anaesth Intensive Care* 2009;37(1):93-98.
- Gordon PC, Llewellyn RL, James MFM. Drug administration errors by South African anaesthetists – a survey. *S Afr Med J* 2006;96(7):630-632.
- Webster CS, Merry AF, Larsson I, et al. The frequency and nature of drug administration errors during anaesthesia. *Anaesth Intensive Care* 2001;29(5):494-500.
- South African Bureau of Standards. South African National Standards SANS 444:2014. Labelling of Small-volume (50 mL or less) Parenteral Drug Containers. Pretoria: SABS Standards Division, 2014.
- South African Bureau of Standards. South African National Standards SANS 26825 Ed1: 2009/R2014. Anaesthetic and Respiratory Equipment – User-Applied Labels for Syringes Containing Drugs Used During Anaesthesia – Colours, Design and Performance. Pretoria: SABS Standards Division, 2014.

S Afr Med J 2016;106(3):227. DOI:10.7196/SAMJ.2016.v106i3.9661

Barber as infectious agent

To the Editor: There are at least half a dozen barbers on the main streets or 'high roads' of suburbs such as Lenasia Ext. 1, Fordsburg and Mayfair in Johannesburg, South Africa. These are run by people of Pakistani, Indian and Bangladeshi origin. We have seen a proliferation of these businesses over the last few years; they provide men's haircuts for a cheap price of between ZAR25 and ZAR30.

As dermatologists and general practitioners, we have been seeing a higher than usual number of new patients with scalp and facial warts, fungal infections and eczematous rashes recently. The common history is frequent visits to the above type of barber, leading to our clinical and expertise-based diagnosis and conclusion.

A personal visit to a few of these little 'barber shops' led us to the opinion that the dermatological infections listed above are a direct result of transfer of infectious agents between clients. These hardworking barbers do use new 'sterile Minora' blades for shaving, which provide a false sense of security. They usually use methylated spirits to sterilise some of their tools of trade. This is not a hygienic method to sterilise equipment, as it is not sufficient to kill fungi, bacteria or viruses. On average, 20 - 40 people are seen in a day, and perhaps more over the weekend. This includes routine haircuts to fancy hairdos, shaving, and head and neck massages using shared oils (i.e. shared by many people).

The barber also does not wash his hands regularly. Skin infections with human papillomavirus and dermatophytes, and allergic contact, are probable clinical sequelae to exposure to these unclean practices.

The increasing incidence and difficulty in treating these dermatological conditions warrants further investigations into this possible public health problem so that appropriate action and changes in the above practices, such as better education of the barbers, can be taken and implemented.

D Modi, Z Modi

Division of Dermatology, Department of Internal Medicine, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa
howzat@iafrica.com

S Naidoo

School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

S Afr J Med 2016;106(3):227. DOI:10.7196/SAMJ.2016.v106i3.9857

The burden of drug overdose on critical care units in East London, South Africa

To the Editor: Intentional self-harm accounted for 1.3% of non-natural deaths and 0.1% of all-cause mortality in South Africa (SA) in 2013.^[1] Fatal suicidal behaviour only represents a portion of the problem. The burden of non-fatal suicidal behaviour on our public health system is significant. Of particular concern is the downward trend in age of those affected, with an exponential increase in suicidal behaviour being seen among the younger generation. Overdoses account for 90% of non-fatal suicidal behavioural events among young people in SA.^[2]

A small retrospective descriptive study was conducted at Frere Hospital in East London, Eastern Cape Province, to determine the recent burden of drug overdose on the high care unit (HCU) and intensive care unit (ICU) – jointly described as the critical care unit (CCU) – for the 1-year period from March 2014 to February 2015.

The study only included adults and adolescents aged ≥ 13 years. The patient data were collected from the admission registers in the CCU, as well as from individual patient folders. Casualty statistics were obtained from the casualty clerk's monthly data sheets.

The total number of overdose patients seen in casualty was 352 over the course of the year, with a mean of 29 patients per month. There were peaks noted in December (40 patients) and October (36 patients) – the same two months when male suicides peaked in SA in 2009.^[3] Overdose patients accounted for 6.8% of all patients seen by the physician on call in casualty throughout the year. Just over a fifth of overdose patients (71 patients) were admitted to the CCU, with 7.7% spending time admitted to the ICU.

There were 57 overdose patients admitted to the HCU during the year, with a mean of five patients per month. These patients accounted for 7.2% of the total number of HCU admissions, and 21.7% of all medical admissions to the HCU. There was a female predominance (61.4%). Females were found to peak in the 13 - 19-year-old and 20 - 29-year-old age groups. Males peaked in the 20 - 29-year-old age group. Both sexes saw an early peak followed by a slow decline until the 60 - 69-year-old age group. The two most common categories of substances ingested were the tricyclic antidepressants (29.8%) and the cholinesterase inhibitors or organophosphates (22.8%). The median duration of stay in the HCU was 3 days, with the usual outcome (82.5%) being transfer to a general medical ward. In total, the overdose admissions accounted for 190 days of admission in the HCU.

In the ICU, there were 28 overdose admissions in the year, with a mean of two patients per month. These patients accounted for 5.6% of all ICU admissions, and a quarter of all medical ICU admissions. There was no difference between the two genders in terms of number of admissions. Similar to the pattern noticed in the HCU, females peaked early in the 13 - 19-year-old age group, with males peaking slightly later in the 20 - 29-year-old age group. The two most common categories of substances ingested were the same as in the HCU (28.6% tricyclic antidepressants, 25% organophosphates). The two main outcomes were transfer to the HCU or transfer to the general medical ward. The median duration of stay in the ICU was 3 days, with the overdose admissions accounting for 128 days of ICU admission in total. The cost implications are significant.

Comparison of these findings with those of a similar, larger study – a 5-year (2006 - 2010) retrospective review conducted at Cecilia Makiwane Hospital (CMH), a nearby large referral hospital – reveals certain trends.^[4] Cholinesterase inhibitors were also one of the main substance categories resulting in CCU admission; however, they played a more predominant role at CMH, accounting for 55% of all admissions. At both hospitals, females predominated; however, at Frere the difference was more pronounced (60% female, 40% male) than at CMH (53% female, 47% male). The mean age (years) was similar at both hospitals: 30.86 at Frere (females 29.00, males 33.62) and 29.50 at CMH (females 27.91, males 31.31). The mean duration of stay in Frere's HCU was 3.33 days (79.92 hours), which was similar to CMH's CCU, where it was 3.31 days (79.32 hours). Overdose admissions peaked in the summer months at both hospitals (January at CMH, December at Frere).

These findings demonstrate the recent trends and burden of overdoses on public hospitals in the Buffalo City Municipality, but they probably reflect a much larger, nationwide problem. These patients are managed by the Department of Internal Medicine at Frere Hospital in liaison with the Department of Psychiatry at CMH. There is no dedicated psychiatric unit at Frere Hospital, even though it is a tertiary referral centre. Improved availability and accessibility of psychiatric services as well as better co-ordination of medical and mental healthcare must become a public health priority.

Kirsten Rowe

Intern medical doctor, East London Hospital Complex, Eastern Cape, South Africa (currently Community Service Medical Officer, Galeshewe Day Hospital, Kimberley, Northern Cape, South Africa)
kirstenrowe@gmail.com

1. Statistics South Africa. Mortality and causes of death in South Africa. Pretoria: Statistics South Africa, 2013:39.
2. Schleich L. Suicidal behaviour. In: Van Niekerk A, Suffla S, Seedat M, eds. Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety. Cape Town: Psychological Society of South Africa, 2012:179-183.
3. Matzopoulos R, Prinsloo M, Bradshaw D, et al. The Injury Mortality Survey: A National Study of Injury Mortality Levels and Causes in South Africa in 2009. Cape Town: South African Medical Research Council, 2013:29.
4. Favara DM. The burden of deliberate self-harm on the critical care unit of a peri-urban referral hospital in the Eastern Cape: A 5-year review of 419 patients. *S Afr Med J* 2013;103(1):40-43. [http://dx.doi.org/10.7196/SAMJ.6231]

S Afr J Med 2016;106(3):227-228. DOI:10.7196/SAMJ.2016.v106i3.9933

Thank you, Janet Seggie

Prof. Janet Seggie joined the Health and Medical Publishing Group (HMPG) in November 2012 as Editor-in-Chief of the *South African Medical Journal (SAMJ)*, bringing with her the experience gained in an outstanding academic and clinical career that spanned the universities of the Witwatersrand and Cape Town.

Her impact on the journal has been significant, ensuring that it is a source of medicopolitical news, up-to-date comment and opinion, and excellent research that is highly relevant to our challenging medical environment in South Africa. She has also offered a publication platform for colleagues from other countries on the continent, who rarely have the chance to publish their research in difficult medical and academic environments.

Under Janet's tenure, the *SAMJ* once again took on an educational role by incorporating *CME* within its pages – a highly successful move that has attracted the contributions of some of our top medical academics.

We wish Janet well in her well-deserved retirement, and thank her sincerely for her contribution.

Bridget Farham

*Deputy Editor, SAMJ
Executive Editor, HMPG*