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Sunbeds: A burning issue needing attention in South Africa

To the Editor: There is scientific evidence demonstrating an association between sunbed (tanning bed) use and subsequent development of melanoma.[1,2] The risk of melanoma skin cancer for individuals who 'ever used' sunbeds has been reported to increase by 20%, and by 40% if sunbeds were used before the age of 35 years.[1,2] In South Africa (SA), skin cancer is among the top 10 cancers and causes ~300 deaths per year.[3] The cost of diagnosis and treatment of skin cancers in SA public and private healthcare settings is estimated at >ZAR90 million per year.[4]

Prevalence data from surveys and data from GLOBOCAN were used to estimate that, in 2008, 3 438 cases of melanoma could be attributable to sunbed use, most (n=2 341) occurring among women, in 15 member countries of the European Community (plus three member countries of the European Free Trade Association).[1] While we do not have such figures for SA, we identified one South African who had used a sunbed prior to the development of an invasive amelanotic melanoma on her left leg. Fig. 1 presents a timeline of her sun exposure history and melanoma diagnosis and treatment up to 2 October 2018.

The International Agency for Research on Cancer classified ultraviolet (UV)-emitting tanning devices, i.e. sunbeds, as carcinogenic in 2009 and concluded that there is no safe limit for UV from such devices.[5] The World Health Organization[6] stated that countries need to educate the public about the health risks of UV exposure from sunbeds and apply regulations to restrict their use,[7] such as banning use of sunbeds by people with sensitive skin, banning unsupervised operations, banning hire/sale of sunbeds, enforcing registration of sunbeds and sunbed premises, periodic inspections of sunbed premises, and fines for any infringements of proclaimed restrictions. Recent legislation in several countries around the world bans commercial sunbeds (Appendix 1; available in the online version of this article at https://doi.org/10.7196/SAMJ.2018.v108i12.13715).[8]

In SA, sunbeds are widely available[9] for use in beauty salons, fitness gyms and hair salons, and for sale, both new and second hand. We postulate that trying to regulate sunbed operators in SA will be challenging. There is lack of compliance of sunbed operators with the South African Consumer Protection Act No. 68 of 2008[10] (that restricts false advertising) to not overstate the perceived 'benefits' of sunbed use including that 'sunbeds condition skin before going outdoors in summer'. The cost of regulation and compliance is prohibitive. Local authorities would be mandated to oversee sunbed regulation, and their scope of work is already burdensome. Sunbeds are geographically dispersed throughout the country,[9] so ongoing efforts to ensure compliance would be costly. Second-hand, ex-commercial sunbeds may be disposed of in the second-hand market, possibly to private residences, making regulation challenging. In some countries that have banned sunbeds, sunbeds were removed from premises, and sunbed operators were compensated.

A ban on sunbeds is probably the best way forward for SA, although it will not be a simple process. We could also consider additional taxes for tanning sessions, such as those placed on tobacco and recently sugar, to drive down demand, as an example of possible regulatory action by government, but this would still require compliance monitoring. Embarking on a nationwide education campaign in SA to educate the public on risks associated with using sunbeds will require prolonged and ongoing commitment by the National Department of Health, the Cancer Association of South Africa and others working for primary and secondary prevention of skin cancer.

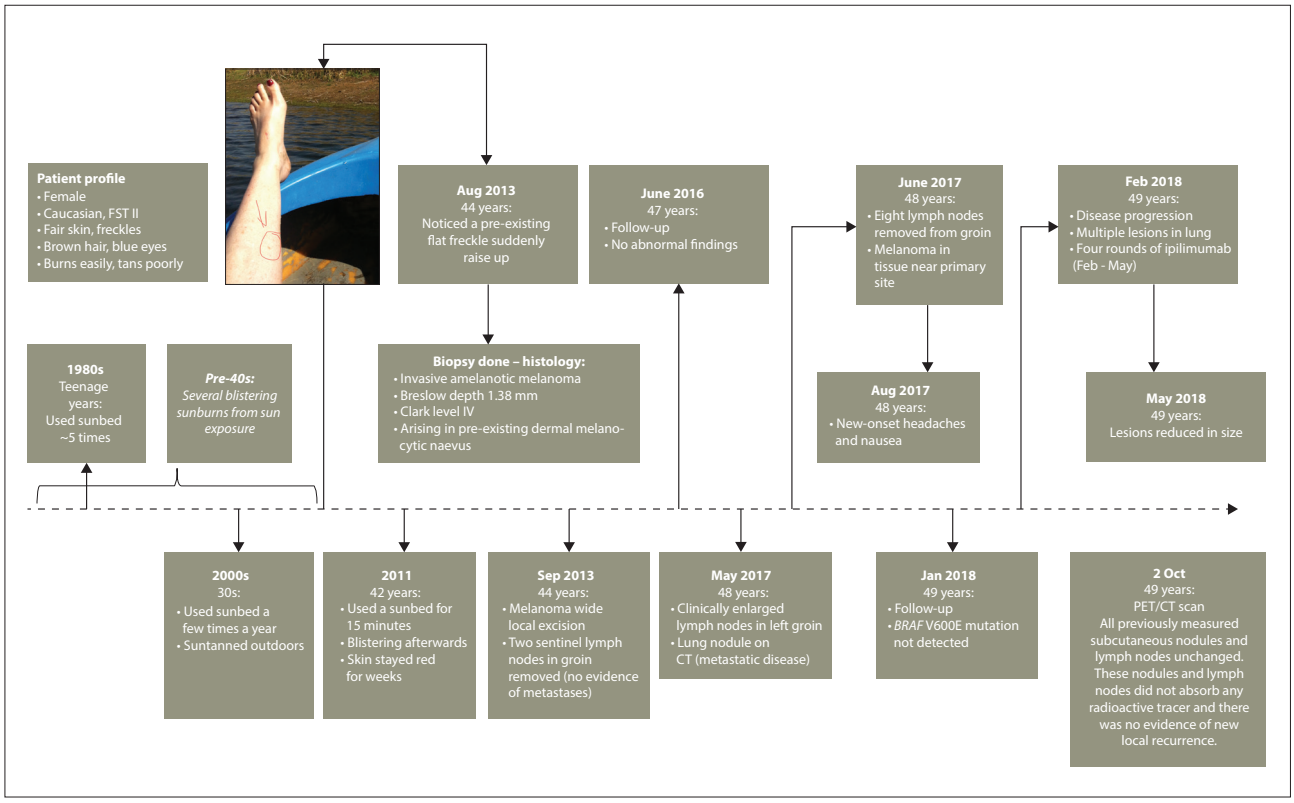

Fig. 1. Timeline of a melanoma patient who used a sunbed during her teenage years and again during her 30s, and developed an invasive amelanotic melanoma 2 years after experiencing a bad sunburn from a sunbed. While sunbed use is only one of many risk factors, it is a modifiable risk factor, since one can choose not to use a sunbed. (FST II = Fitzpatrick skin type II; CT = computed tomography; PET = positron emission tomography.)

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Appendix 1

Countries that have banned sunbeds (World Health Organization[8])

Country	Existence of national regulation	Year of national implementation of regulation	Existence of subnational regulation
Argentina	No		Yes
Australia	No		Yes
Austria	Yes	1995	No
Bahrain	No		No
Belgium	Yes	2017	No
Bolivia	No		No
Brazil	Yes	2009	No
Bulgaria	No		No
Canada	Yes	2014	Yes
Chile	Yes	2013	No
China	No		No
Colombia	Yes	2005	No
Cuba	No		No
Cyprus	No		No
Denmark	Yes	2014	No
Egypt	No		No
Finland	Yes	2012	No
France	Yes	2014	No
Germany	Yes	2012	No
Greece	No		No
Iceland	Yes	2003	No
Iran	No		No
Iraq	No		No
Ireland	Yes	2015	Yes
Israel	Yes	2014	No
Italy	Yes	2011	Yes
Latvia	Yes	2010	No
Luxembourg	No		No
Malaysia	No		No
Morocco	No		No
Netherlands	Yes	2015	No
New Zealand	Yes	2017	Yes
Norway	Yes	2016	No
Philippines	No		No
Qatar	No		No
Saudi Arabia	No		No
Slovakia	Yes	2014	No
Slovenia	Yes	2009	No
Spain	Yes	2002	Yes
Sweden	Yes	2012	No
Switzerland	Yes	2013	Yes
United Arab Emirates	No		Yes
UK	No		Yes
USA	Yes		Yes