

The Royal Flying Doctor Service primary care skin cancer clinic: a pilot program for remote Australia

Melania Scrace¹, Stephen A Margolis^{1,2}

¹Royal Flying Doctor Service (Queensland Section), ²School of Medicine and Dentistry, James Cook University

Background

Skin cancer, both of the melanoma and non-melanoma (NMSC) types are now the most common types of cancer in white populations across the globe. (1) Queensland, Australia, has the highest incidence of melanoma in the world. (2) As the key risk factor for melanoma and NMSC is ultraviolet sun exposure, those living and working in remote parts of Queensland, where outdoor work and leisure activities are common, are at increased risk compared to their metropolitan counterparts. (1)

Traditionally skin cancers in Australia of both the melanoma and NMSC types were managed by primary care doctors in general practice supported by specialist services where appropriate. (3) With the dramatic rise in both the incidence and public awareness of skin cancer, there has been a concomitant rise in the proportion of all cause skin cancers managed by general practitioners. (4) In metropolitan areas of Australia this is often within the context of dedicated primary care skin cancer clinics.

This paper considers the challenge of providing a similar style of dedicated primary care skin cancer service to a series of towns in remote Queensland, Australia; locations long distances from major centres and with limited on the ground human and physical resources. The study was conducted in six remote locations where the Royal Flying Doctor Service Qld Section (RFDS) is the principal provider of primary care medical staff working entirely on a fly in – fly out basis and working in conjunction with resident remote area nurses employed by Queensland Health, the state government health provider. In addition to the standard primary care services, RFDS established a dedicated fly-in, fly-out primary care skin cancer outreach clinic. The clinic was run concurrently with the regular primary care medical service; the entire focus of this additional service was on skin cancer diagnosis and management.

The aim of this study was to ascertain whether the RFDS skin cancer clinic could improve skin cancer health outcomes for the target population while providing care at a level consistent with that documented for metropolitan skin cancer clinics.

Methods

This retrospective longitudinal report considers the period April 1, 2006 through June 30, 2008, with the historical control period 01 April 2001 through 31 March 2006.

Results

During the study period a total of 316 people were seen at this skin cancer clinic (29% of the total non-Indigenous population) with 39% of those aged 50+ years seen. The rate of skin cancer detection was 15 /1000 adults / year. The number of lesions removed / year increased from 37 to 42 after the intervention, with no statistically significant change in the percentage of excised lesions that were malignant (44%). For 50+ year old males, there was a statistically significant increase in the proportion of excised lesions that

were melanomas ($\text{Chi}^2 = 6.015$ $p=0.013$). This corresponded to a 4 fold rise in melanoma detection from 0.2 / 1000 people / year pre intervention to 2 / 1000 people / year post intervention. However, the small population and consequently low statistical power mitigated against certainty in concluding that clinical outcomes were enhanced.

A comparison of the skin clinic's effectiveness compared with documented results from other Australian non-specialist skin cancer services demonstrated on a number of criteria results similar to those seen in other Australian settings.

Conclusion

The RFDS skin cancer clinic outcomes were not dissimilar to that seen in metropolitan skin cancer clinics. Hence patients who were the consumers of this clinical product can be reassured that their care was not being compromised by their geographical location.

Further studies would assist in the future development of models for skin cancer clinics in remote areas.

References

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Presenter

Stephen Margolis is the Head of Research and a Medical Officer with the Royal Flying Doctor Service Queensland Section, the Assessment Manager at the College of Rural and Remote Medicine and an academic researcher with the School of Medicine and Dentistry, James Cook University. Stephen has extensive experience across Australia and internationally in both clinical and academic rural and remote medicine. His primary areas of research interest are Indigenous health and medical education. Stephen divides his professional time between research, medical education and providing medical care to remote Queensland communities.