



Research Evaluation of the PAH Transplant Skin Clinic: Pilot Study

Adèle Green, Kiarash Khosrotehrani,
Scott Campbell, Nicole Isbel, Louisa Gordon,
Anthony Griffin



MICROSCOPIC

1. Right cheek: The sections show moderately differentiated squamous cell carcinoma invading into the deep dermis. There is adjacent intraepidermal carcinoma. There is no lymphovascular or perineural invasion and carcinoma is clear of margins.

2. Left shin: The sections show moderately differentiated squamous cell carcinoma invading into the mid dermis. There is adjacent intraepidermal carcinoma. There is no perineural or lymphovascular invasion and carcinoma is clear of margins.

3. Left wrist: The sections show intraepidermal carcinoma which is clear of margins.

4. Left foot: The sections show moderately differentiated squamous cell carcinoma with adjacent intraepidermal carcinoma. There is no perineural or lymphovascular invasion and carcinoma is clear of margins.

5. Left thigh: The sections show extensive dermal scarring, with adjacent solar keratosis and solar lentigo. There is no evidence of residual tumour.

6. Right proximal medial forearm: The sections show solid basal cell carcinoma invading into the deep dermis. There is no perineural invasion and carcinoma is clear of margins.

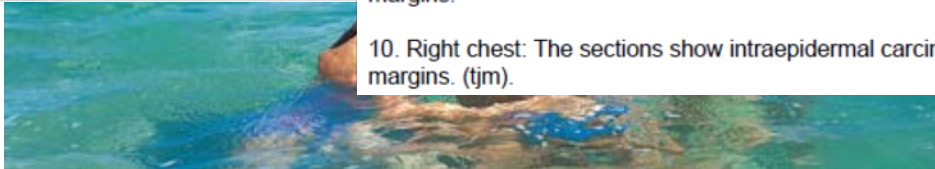
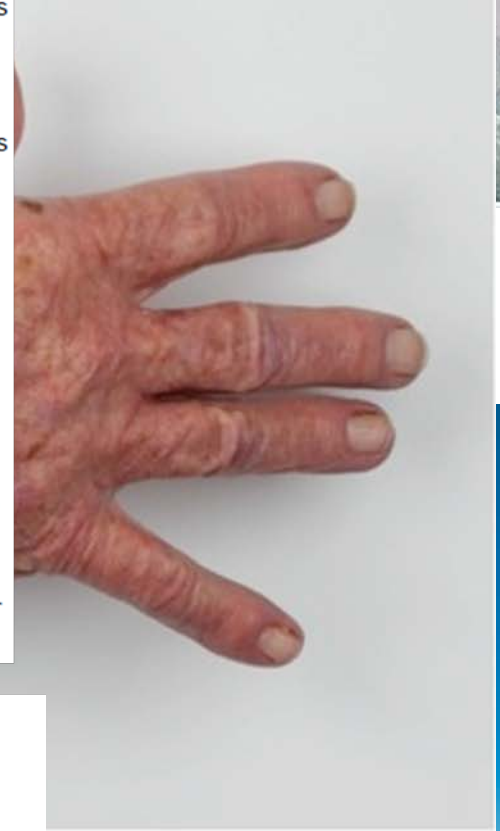
7. Right lateral arm: The sections show intraepidermal carcinoma which is clear of margins.

8. Right shin: The sections show intraepidermal carcinoma which is clear of margins.

9. Right knee: The sections show intraepidermal carcinoma which is clear of margins.

10. Right chest: The sections show intraepidermal carcinoma which is clear of margins. (tjm).

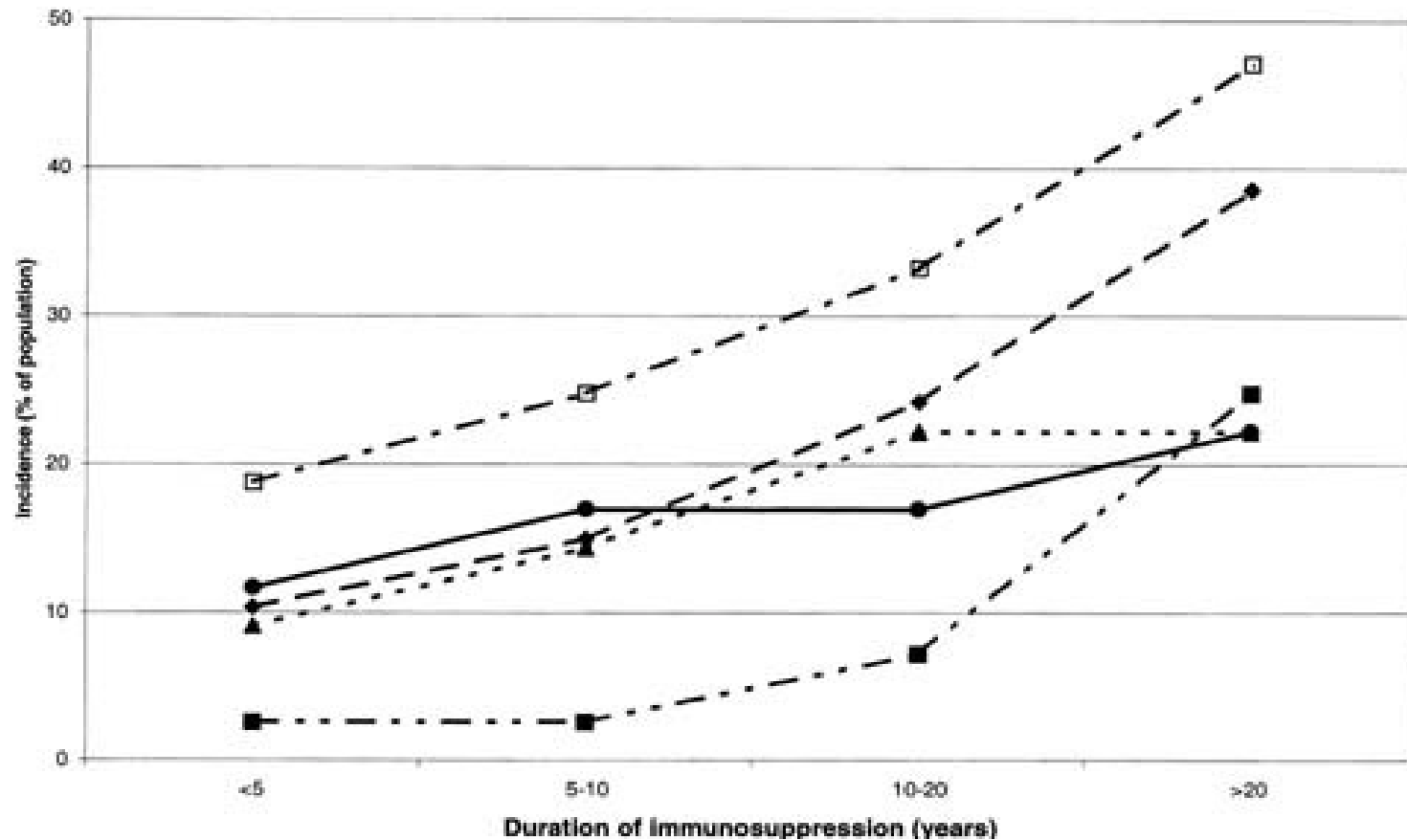
107 NMSC removed



A big problem

- 95% of cancers in OTR are skin cancers
- Risk
 - 30 x higher incidence for SCC and BCC
- Multiple
- More aggressive
 - Earlier dermal invasion
 - Infiltrative growth pattern
 - Greater depth of invasion at diagnosis
- 74% with first SCC will develop a second in 5 years
- Increased risk of local recurrence, regional and distant recurrence
 - SCC metastasize in 1-4% of patients
- Procedures, morbidity and costs

Incidence of NMSC and duration of immunosuppression in 310 RTRs

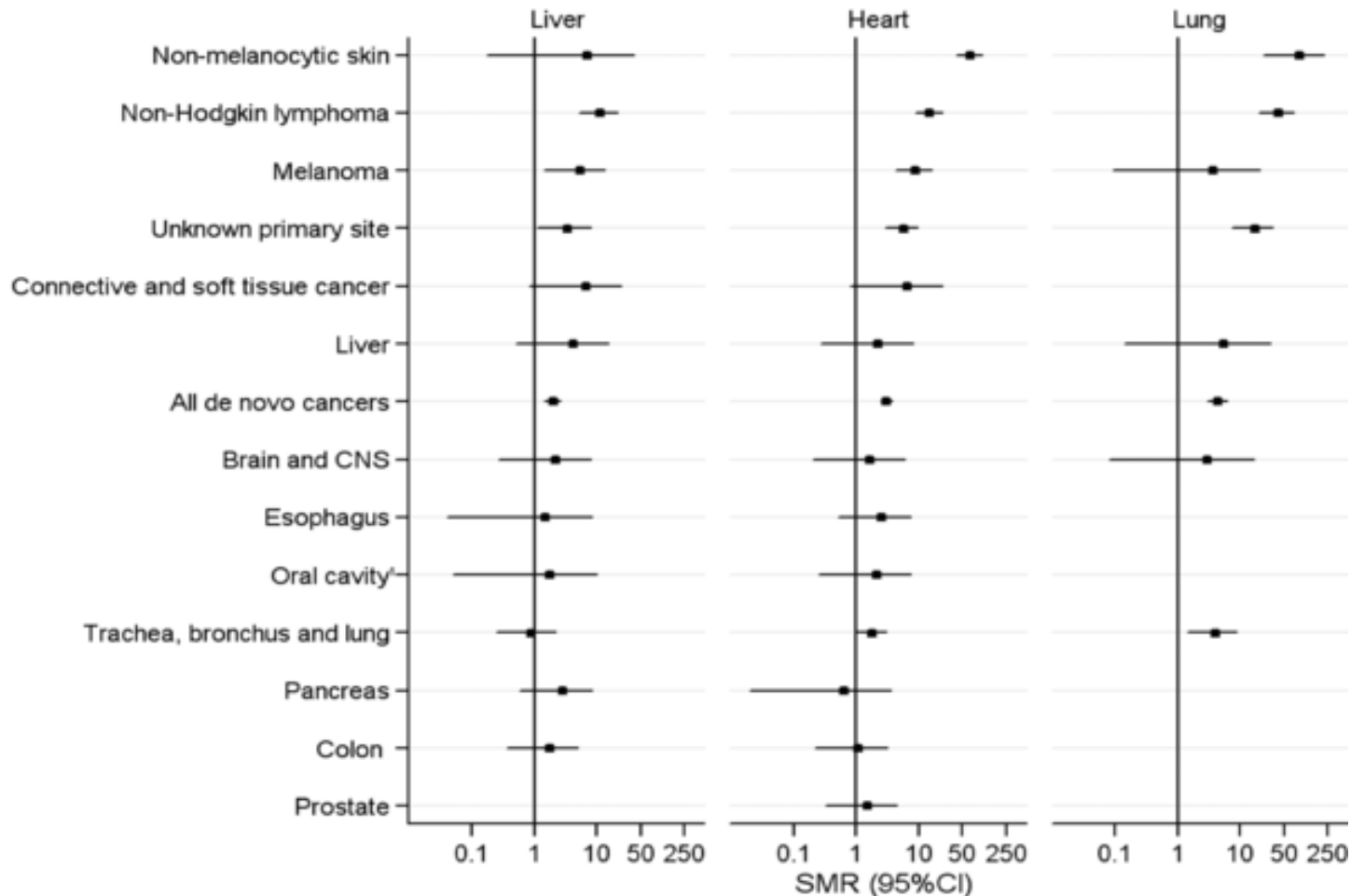


■ = KA; ◆ = SCC; ● = BCC;

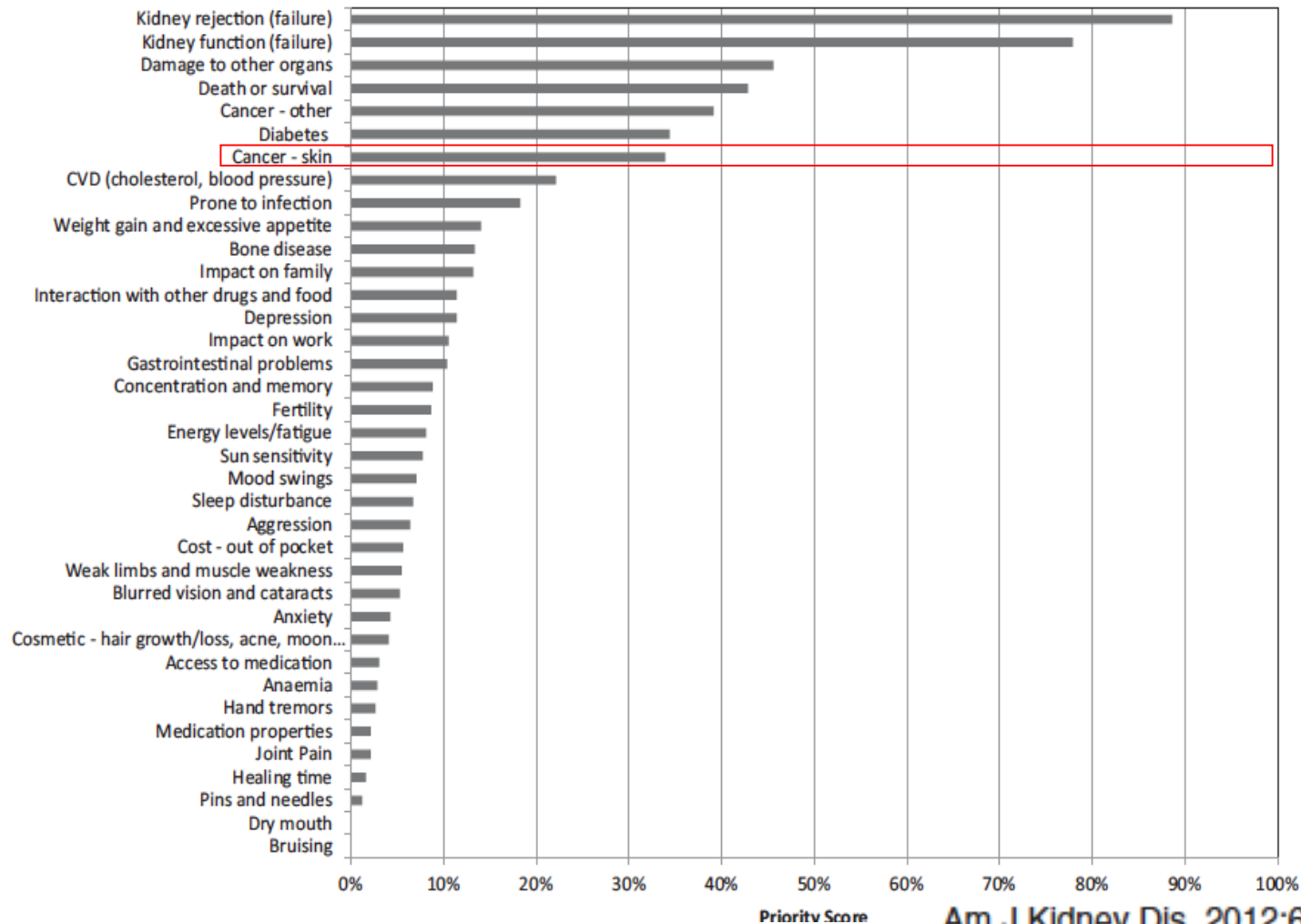
□ = ALL

Carroll et al, 2003

KC Mortality increased in transplants



Patient priority scores for outcomes post transplantation



Rationale for this project – state of play

- OTRs spend too much time moving from specialist clinic to clinic
 - Unacceptable delays in assessment and treatment
 - Fragmentation of care
 - Cost – to the patient; to the hospital system
- OTRs need prompt attention to their skin care so that skin cancers can be detected and treated early
 - Ad hoc follow up
 - Some lesions have explosive growth pattern and no mechanism for rapid review
- Primary prevention is very effective and cost-effective
 - Only 50% patients regularly practiced multiple sun protection behaviours
 - No structured pre transplant skin assessment and education

- **Dedicated Transplant Skin Cancer Clinic**
 - Weekly outpatient clinic with minor ops
 - Kidney and Liver transplant patients
 - Dermatologists and Surgeons
 - See and treat
 - Drop in appointments for urgent cases
 - Pre-transplant assessment and advice
 - Nurse educators
 - Rapid triaging of patients to plastic surgeons, radiation oncology with appropriate investigation
 - Opportunity for collaborative research

Aim & Objectives

To evaluate a new skin clinic that will streamline hospital care to provide expert dermatology services and health education to prevent skin cancer in high-risk OTRs.

- Document the frequency and outcomes of 1) skin examinations 2) skin cancer surgery in OTRs
- Monitor referral and follow-up of all OTRs /skin cancers
- Examine socio-demographic, clinical factors associated with attendance & skin cancer burden
- Provide preventive advice to OTRs and monitor update of preventive behaviours
- Assess hospital costs of skin cancer treatment and cost burden to patients for managing their skin health

Research plan

- Prospective observational pilot study
- Patients: all consecutive OTRs (kidney, liver) receiving care through the PAH Transplant Skin Clinic.
- Patients first seen by specialists for referral to study
- Enrol over next 4 months (Nov-Feb) for target of 100 patients
- Patients will complete a survey at baseline and 3 months and undergo a skin examination by a study clinician.

Data measurement (1)

Health service delivery

- Patient chart review (paper, electronic)
- Caseload per month
- Frequency of skin exams, skin cancer surgeries
- Number of patients given skin cancer prevention education



Avoiding over exposure to ultraviolet (UV) radiation is the best way to prevent skin cancer. Follow these simple steps:

- Slip on sun protective clothing.
- Slop on SPF30 or above broad spectrum water-resistant sunscreen.
- Slap on a broad brimmed hat.
- Seek shade.
- Slide on wrap around sunglasses.
- Check the UV Alert daily for sun protection times. Be extra cautious in the middle of the day, when UV levels are more intense.
- Avoid solariums. Solariums can emit UV radiation up to six times as strong as the midday summer sun.

Slip on clothing

Clothing provides an effective form of protection from the sun, providing it meets the following simple guidelines.

Dark colour

Fabrics that are dark in colour, such as greens, blues and reds are perfect for sun protection as they will inhibit ultraviolet light penetration and will reduce any reflection onto your exposed skin.



There's more to sun protection than sunscreen. Protect yourself in five ways:

-  Slip on sun protective clothing
-  Slop on SPF30 or above sunscreen
-  Slap on a broad-brimmed hat
-  Seek shade
-  Slide on wrap around sunglasses

Data measurement (2)

Sun protection behaviours

- Patient self-reported surveys (first visit + 3 months)

 Study ID 

Transplant Skin Clinic Study

BASELINE SURVEY

Instructions

- Please answer ALL of the sections in the survey, even if they do not seem to be directly relevant to you. Everything you tell us will be treated in strict confidence but you are free to leave any specific questions that you do not wish to answer.
- If you are not sure of the correct answer, please give us your best estimate. We are asking many different people the same questions and we gain insight from the many different responses we receive.

YOUR GENERAL INFORMATION

1. What is today's date? / /
2. What is your date of birth? / /
3. What is your postcode?
4. What is your sex? Male Female

18. About how many times in the last 6 months have you had a sunburn?

- 1 Never
- 2 Once
- 3 2-5 times
- 4 More than 5 times

19. Overall, since leaving school, your occupations have been:

- 1 Mainly indoors
- 2 Both indoors and outdoors
- 3 Mainly outdoors

20. Overall your sport and leisure activities have been:

- 1 Mainly indoors
- 2 Both indoors and outdoors
- 3 Mainly outdoors

21. During the last 3 months, how much time did you spend outdoors during the whole day (from sunrise to sunset):

On a typical WEEK DAY?

- 1 Hardly ever (up to one hour)
- 2 Less than 50% of the time (2-4 hours)
- 3 More than 50% of the time (5-8 hours)

On a typical WEEKEND DAY?

- 1 Hardly ever (up to one hour)
- 2 Less than 50% of the time (2-4 hours)
- 3 More than 50% of the time (5-8 hours)

22. Over the last 3 MONTHS, whenever you have been outside in the sun for longer than 15 minutes, how often on average have you:

Applied **SUNSCREEN**

- 1 Never
- 2 Less than 50% of the time
- 3 More than 50% of the time
- 4 All the time

Worn **A HAT** that shades your face, neck and ears?

- 1 Never
- 2 Less than 50% of the time
- 3 More than 50% of the time
- 4 All the time

Data measurement (3)

Healthcare costs

- Patient self-reported survey (cost burdens)
- Administrative costing and resource data (QHealth)



30. Did you need to take time off work when you visited the PAH Transplant Skin Clinic?

No

Yes, in the last 3 months I took a total of hours off work to visit the PAH Transplant Skin Clinic

31. Did your partner or carer need to take time off work when you visited the PAH Transplant Skin Clinic?

No

Yes, in the last 3 months my carer took a total of hours off work to visit the PAH Transplant Skin Clinic

32. During the last 3 months, can you estimate what additional out-of-pocket costs you faced due to having treatment for skin cancer?

<input type="checkbox"/> GP/specialist appointments, total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Removal of skin lesions, total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Creams (efudix, imiquimod 5%), total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Medical Tests and imaging (scans), total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Radiation or laser treatments, total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Skin cancer medications (e.g. Yervoy, nicotinamide), total cost	<input type="text" value="\$"/>
<input type="checkbox"/> Other, namely <input type="text" value="Please specify"/> total cost	<input type="text" value="\$"/>

Timeline(9 months)

- Oct: planning and ethics approvals (submitted to QIMR HREC), QHealth (due soon)
- Nov-Feb: Recruitment & data collection
- Mar-May: Follow-up survey data collection
- Jun: Data analysis & report to ASSC

