SSC 5B

A Brief report on The Management of Skin Cancers

St Richard's Hospital, Chichester, Medical Elective 2017

(Thomas Kiwanuka)

SSC 5b – A Brief report on The Management of Skin Cancers at St Richards Hospital Chichester

Objectives

1. To see the variety of skin cancers/conditions that present to the maxillofacial unit at St Richards Hospital

2. To learn how skin cancers and conditions are managed

3. To determine the level of understanding of skin conditions in the patient population at St Richards Hospital and the burden of treatment/cost to the NHS

4. To learn the various surgical techniques used to treat skin lesions

Introduction

St Richard's Hospital is a medium-sized District General Hospital in Chichester (top 40% of least deprived areas in the UK), West Sussex, that is part of Western Sussex Hospitals NHS Foundation Trust. The other hospitals being the Royal West Sussex and Worthing, and Southlands Hospitals NHS Trusts, which all joined together in July 2013.

Around 450,000 people are within the trusts catchment area, with the proportion of over 65's being above that of the average in England, and the proportion of ethnic minorities being lower than that of the England average. The population is generally of middle-age to retirement age, with Fitzpatrick skin Type I-II.

St Richards Hospital provides around 430 beds out of the 953 within the trust, which also employs over 5,600 people. Financially the trust has made a surplus every year since it merged, and is therefore doing well.

Between 01/04/2016 and 31/03/2017 the trust over both sites at Worthing and Chichester saw 3,902 patients under the two-week rule for suspected skin cancers, and about 15% of these were diagnosed as skin cancers. Specifically, at St Richards 87 of these cases were found to be melanomas and histologically, 488 were confirmed to be squamous cell carcinomas (SCC's).

In this brief report, I will comment on the cases and experience I had within the St Richards Hospital Maxillofacial and Dermatology department between the period of 27/03/2017 to 05/05/2017, by answering my objectives.

Objective 1 - To see the variety of skin cancers/conditions that present to the maxillofacial unit at St Richards Hospital

When attending the outpatient maxillofacial and dermatology departments during my elective period at St Richards I was able to see a wide variety of skin conditions/cancers, that were referred both routinely and under the 2-week skin cancer referral pathway.

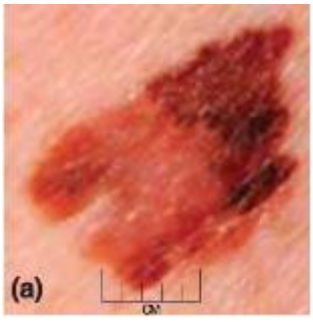
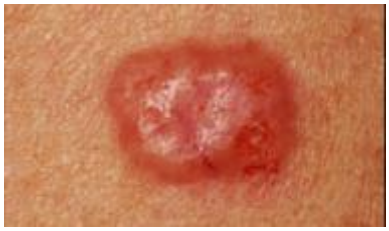
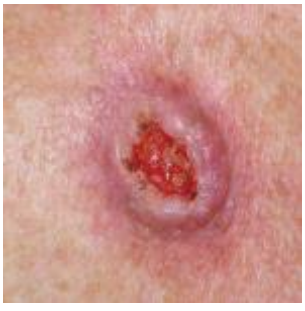
Some of the conditions seen included melanomas and non-melanoma skin cancers, including squamous cell carcinomas (well/moderately/poorly differentiated), basal cell carcinomas (nodular), keratocanthomas, Bowenoid actinic keratosis, lentigo maligna, atypical fibroxanthoma to name a few.

The vast majority of new lesions seen (49) at St Richards hospital between 27/03/17 to 05/05/17 were diagnosed as basal and squamous cell carcinomas. This is shown on the table below which shows all the new confirmed diagnoses during that period across the two main sites. These seem to occupy the bulk of lesions seen and treated.

Table 1: Confirmed skin lesion diagnoses at St Richards and Worthing Hospital between 27th March 2017 & 5th May 2017.

	St Richard's	Worthing	Total
Melanomas	12	8	**20**
BCC's /SCC's	49	76	**125**
Melanoma in situ	6	3	**9**
Atypical fibroxanthoma	2	0	**2**

Diagram 1: The appearances of the types lesions encountered in department

Superficial Spreading Melanoma	Basal Cell Carcinoma	Squamous Cell Carcinoma
		

Objective 2 - To learn how skin cancers and conditions are managed

The basic framework/guidelines used to manage patients were derived from the British Association of Dermatology (BAD), and it was from these referenced guidelines that the standard of treatment was set. I was able to read through some of these during my time as they were integral in understanding the patients journey from diagnosis to investigation to treatment.

All new patients seen within the department as routine or fast track cancer referrals had their histories (present complaint, medical including performance status, social, drug, exposure to sun, family) obtained by one of the senior clinicians (staff grades/consultants). From this point, they were examined (some with the use of a dermatoscope), and depending on the suspected type and size/location of lesion, patient's health, and medication they were either sent for imaging and/or for biopsies (incisional/excisional/curettage) within the department under local anaesthetic or in theatre under local/general anaesthetic, taking into account the margin of clearance required for the suspected type of lesion as per BAD guidelines. Some of these would have required reconstruction with local flaps/skin grafts.

Following this, all patients with cancer diagnoses (SCC/Melanoma) have their histology results staged/graded and imaging if taken discussed at the skin cancer MDT meeting (held weekly), with the maxillofacial surgeons, dermatology consultants, pathologists, radiologists, skin cancer specialist nurses. Any further management/treatment would be discussed and documented and explained to the patient at their next clinic appointment.

Table 2: Summary of Treatment Options for Primary Cutaneous Squamous Cell Carcinoma[3]

Treatment	Indications	Contraindications	Notes
Surgical Excision	All resectable tumours	Where surgical morbidity is likely to be unreasonably high	General treatment of choice for SCC
Mohs Micrographic Surgery / Excision with histological control	High risk tumours	Where surgical morbidity is likely to be unreasonably high	High risk tumours need wide margins or histological margin control
Radiotherapy	Non-resectable tumours	Where tumour margins are ill-defined	
Curettage and Cautery	Small, well-defined, low-risk tumours	High risk tumours	Only suitable for experienced practitioners
Cryotherapy	Small, well-defined, low-risk tumours	High risk tumours, recurrent tumours	Only suitable for experienced practitioners

Diagram 2: Summary of 2010 guidelines for management of melanoma[1]

Summary of 2010 guidelines for management of melanoma

(See full manuscript for details of evidence and recommendation gradings)

Melanoma patients who must be referred from the Local Skin Cancer Multidisciplinary Team to the Specialist Skin Cancer Multidisciplinary Team

- Patients with stage IB or higher primary melanoma when sentinel lymph node biopsy (SLNB) is available within their Network. In the absence of SLNB then patients with stage IIB or higher should be referred to the Specialist Skin Cancer Multidisciplinary Team
- Patients with melanoma stage I or above who are eligible for clinical trials that have been approved at Cancer Network level
- Patients with melanoma managed by other site specialist teams, e.g. gynaecological, mucosal and head and neck (excluding ocular)
- Patients with multiple primary melanomas
- Children younger than 19 years with melanoma
- Any patient with metastatic melanoma diagnosed at presentation or on follow up
- Patients with giant congenital naevi where there is suspicion of malignant transformation
- Patients with skin lesions of uncertain malignant potential

Recommendations for Local Skin Cancer Multidisciplinary Team record keeping of clinical features

See National Institute for Health and Clinical Excellence *Improving Outcomes for People with Skin Tumours including Melanoma*, February 2006. Available at: http://www.nice.org.uk/nicemedia/live/10901/28906/28906.pdf

Recommendations for screening and surveillance of high-risk individuals

- Patients who are at moderately increased risk of melanoma should be advised of this and taught how to self-examine. This includes patients with atypical mole phenotype, those with a previous melanoma, and organ transplant recipients
- Patients with giant congenital pigmented naevi are at increased risk of melanoma and require long-term follow up
- The prophylactic excision of small congenital naevi is not recommended
- Individuals with a family history of three or more cases of melanoma should be referred to a clinical geneticist or specialized dermatology services for counselling. Those with two cases in the family may also benefit, especially if one of the cases had multiple primary melanomas or the atypical mole syndrome

Requirements for microscopy of melanoma

Essential

- Ulceration
- Histological subtype
- Thickness
- Margins of excision
- Mitotic count
- Pathological staging

Desirable

- Level of dermal invasion
- Tumour-infiltrating lymphocytes
- Perineural invasion
- Growth phase
- Lymphatic or vascular invasion
- Microsatellites
- Regression

Surgical wider excision margins for primary melanoma

Breslow thickness	Lateral excision margins to muscle or muscle fascia
In situ	5-mm margins to achieve complete histological excision
< 1 mm	1 cm
1·01–2 mm	1–2 cm
2·1–4 mm	2–3 cm
> 4 mm	3 cm

Staging investigations for melanoma

- Patients with stage I, II and IIIA melanoma should not routinely be staged by imaging or other methods as the true-positive pick-up rate is low and the false-positive rate is high
- Patients with stage IIIB or IIIC melanoma should be imaged by computed tomography prior to surgery and with Specialist Skin Cancer Multidisciplinary Team (SSMDT) review
- Patients with stage IV melanoma should be imaged according to clinical need and SSMDT review; lactate dehydrogenase should also be measured

Recommendations for the management of clinically node-negative patients

- There is no role for elective lymph node dissection
- Sentinel lymph node biopsy (SLNB) can be considered in stage IB melanoma and upwards in Specialist Skin Cancer Multidisciplinary Teams
- SLNB is a staging procedure with no proven therapeutic value
- Surgical risks of SLNB, and of a false-negative result, should also be explained

Diagram 3: Summary of 2010 guidelines for management of melanoma[1]

Recommendations for locoregional recurrent melanoma

- All patients should be managed by Specialist Skin Cancer Multidisciplinary Teams
- Nodes clinically suspicious for melanoma should be sampled using fine needle aspiration cytology (FNAC) prior to carrying out formal block dissection. If FNAC is negative although lymphocytes were seen, a core or open biopsy should be performed if suspicion remains
- Prior to formal dissection, performed by an expert, staging by computed tomographic scan should be carried out other than where this would mean undue delay
- The treatment of locoregional limb recurrence is palliative and, depending on extent and response, includes excision or CO_2 laser, isolated limb infusion or perfusion

Recommendations for metastatic disease

- All patients should be managed by Specialist Skin Cancer Multidisciplinary Teams
- Surgery should be considered for oligometastatic disease at sites such as the skin, brain or gut, or to prevent pain or ulceration
- Radiotherapy may have a palliative role in the treatment of metastases
- Standard chemotherapy is dacarbazine although its role is palliative
- Patients with stage IV melanoma should be considered for entry to clinical trials

Pregnancy, oral contraceptives and hormone replacement therapy

Pregnancy in melanoma	Oral contraceptives	Hormone replacement therapy
• No worsening of prognosis • No increase in adverse outcomes for mother or baby • Placental metastases possible in stage IV disease	• No increased risk of melanoma	• No increased risk of melanoma • No worsening of prognosis

Follow up of melanoma patients

- Patients with in situ melanomas do not require follow up
- Patients with stage IA melanoma should be seen two to four times over up to 12 months, then discharged
- Patients with stage IB–IIIA melanoma should be seen 3-monthly for 3 years, then 6-monthly to 5 years
- Patients with stage IIIB and IIIC and resected stage IV melanoma should be seen 3-monthly for 3 years, 6-monthly to 5 years, then annually to 10 years
- Patients with unresectable stage IV melanoma are seen according to need

Appendix 1

Definition of the levels of evidence used in preparation of these guidelines

Level	Type of evidence
Ia	Evidence obtained from meta-analysis of randomized controlled trials, or meta-analysis of epidemiological studies
Ib	Evidence obtained from at least one randomized controlled trial
IIa	Evidence obtained from at least one well-designed controlled study without randomization
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study
III	Evidence obtained from well-designed nonexperimental descriptive studies, such as comparative studies, correlation studies and case studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities
Grade of recommendation	
A	There is good evidence to support the use of the procedure
B	There is fair evidence to support the use of the procedure
C	There is poor evidence to support the use of the procedure
D	There is fair evidence to support the rejection of the use of the procedure
E	There is good evidence to support the rejection of the use of the procedure

Objective 3 - To determine the level of understanding of skin conditions in the patient population at St Richards Hospital and the burden of treatment/cost to the NHS

The majority of patients I came across and spoke to, did have a fairly good understanding of their diagnosed skin lesions. For many of them, they had had previous lesions removed in the past both within the department and elsewhere. The link between their previous sun exposures during their earlier years and their current lesions in most of the patients was not a surprise.

In terms of the burden of cost to the NHS, in the trust, the current payment for a patient on a theatre list in day surgery is about £450, and the unit's costs are about £400. If these patients were treated in clinic, the department would get about £70 which is about the cost of the treatment.

On reflection given at least 69 patients had a diagnosed lesion that required treatment during my 6-week elective at St Richards Hospital alone, the monetary cost to the NHS can be substantial depending on where the patient is treated. For example, table 3 shows that 18 cases were treated in day case theatres, yielding a cost of £8,100 to the NHS over a 6-week period.

Table 3: Cancer Day case surgeries between 27th March – 5th May 2017

Case	Admit Site	Admit Spec	Theatre List Date	Primary Procedure	Primary Diagnosis	Histology
1	SRH	MFU	28/03/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	Well differentiated SCC
2	SRH	MFU	29/03/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	no tumour found - rexcision for SCC scar
3	SRH	MFU	04/04/2017	S065: Excision of lesion of skin of head or neck nec	L570: Actinic keratosis	Bowenoid actinic keratosis
4	SRH	MFU	05/04/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	Moderately differentiated SCC
5	SRH	MFU	05/04/2017	S065: Excision of lesion of skin of head or neck nec	D234: Benign neoplasm: Skin of scalp and neck	Atypical fibroxanthoma
6	SRH	MFU	18/04/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	Nodular basal cell carcinoma
7	SRH	MFU	18/04/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	Moderately differentiated SCC
8	SRH	MFU	19/04/2017	S065: Excision of lesion of skin of head or neck nec	L989: Disorder of skin and subcutaneous tissue, unspecified	Nodular basal cell carcinoma
9	SRH	MFU	21/04/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	Basal cell carcinoma
10	SRH	MFU	21/04/2017	S065: Excision of lesion of skin of head or neck nec	D033: Melanoma in situ of other and unspecified parts of face	Lentigo maligna
11	SRH	MFU	25/04/2017	S065: Excision of lesion of skin of head or neck nec	D033: Melanoma in situ of other and unspecified parts of face	In situ melanoma
12	SRH	MFU	26/04/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	No evidence of tumour
13	SRH	MFU	26/04/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	Nodular basal cell carcinoma
14	SRH	MFU	26/04/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	No BCC or evidence of recurrence
15	SRH	MFU	02/05/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	Moderately differentiated SCC
16	SRH	MFU	03/05/2017	S065: Excision of lesion of skin of head or neck nec	C443: Malignant neoplasm: Skin of other and unspecified parts of face	Moderately differentiated SCC
17	SRH	MFU	03/05/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	Scar tissue from previous SCC
18	SRH	MFU	03/05/2017	S065: Excision of lesion of skin of head or neck nec	C444: Malignant neoplasm: Skin of scalp and neck	Poorly differentiated SCC

Objective 4 - To learn the various surgical techniques used to treat skin lesions

My elective period gave me a lot of experience in seeing how the soft tissues were managed both during the resection/removal of cancerous tumours in the head and neck region, as well as other parts of the body. It was evident that a three-dimensional appreciation of the lesion and subsequent tissue used to reconstruct the defect is vital in obtaining a good aesthetic outcome.

I was fortunate to be at a unit that has a substantial amount of cases to see and learn from, all requiring various methods and skills to reconstruct defects, and it was important to have a good knowledge of the anatomy of the skin, skin flap physiology, the bio-mechanics of skin flaps and various wound closure techniques.

Some of the surgical techniques involved the use of different local flap designs such as rotation flaps, transposition flaps, advancement flaps, bilobe flaps, rhomboid flaps, and island flaps which I had opportunity to observe and assist with. Also, in cases where a local flap was not possible or able to reconstruct the full defect, skin grafts (full/split thickness) were incorporated

Diagram 4: Pictorial representation of some of the flaps used in reconstruction

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 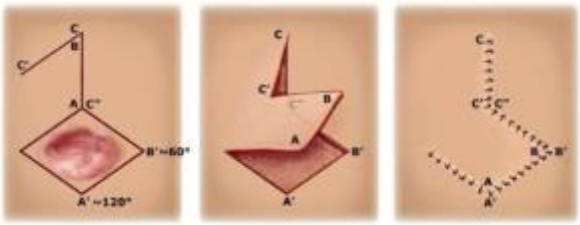 </td>
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 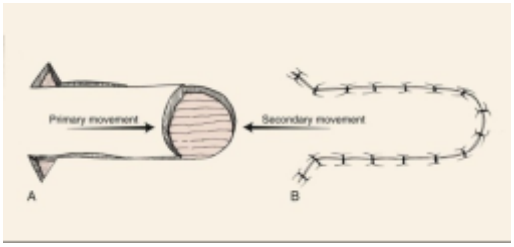
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 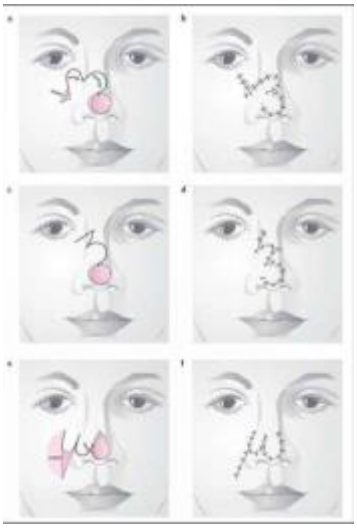 </td>
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 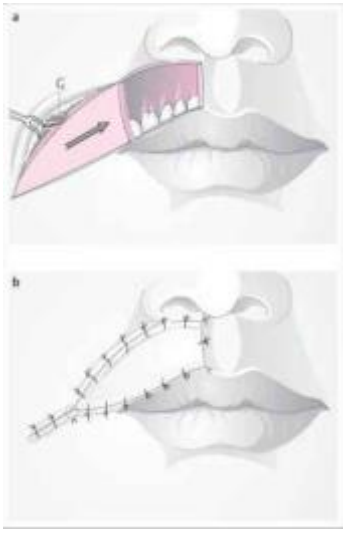 </td>
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References

1. J.R. Marsden, J.A. Newton-Bishop, L. Burrows, M. Cook, P.G. Corrie, N.H. Cox, M.E. Gore, P. Lorigan, R. MacKie, P. Nathan, H. Peach, B. Powell and C. Walker. **Revised U.K. guidelines for the management of cutaneous melanoma 2010**. British Journal of Dermatology 2010, 163, pp238-256.

2. N.R. Telfer, G.B. Colver* and C.A. Morton. **Guidelines for the management of basal cell carcinoma**. British Journal of Dermatology 2008, 159, pp35–48

3. R J Motley, P W Preston, C M Lawrence. **Multi-professional Guidelines for the Management of the Patient with Primary Cutaneous Squamous Cell Carcinoma.** British Association of Dermatology.

4. N.R. Telfer, G.B. Colver and C.A. Morton. **Guidelines for the management of basal cell carcinoma.** British Journal of Dermatology 2008 159, pp35–48.

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ELECTIVE 2017 (SSC5b) SUPERVISOR ASSESSMENT

Student's name: Thomas Kiwanuka **Student ID:** 100051942

Dates of Elective (to/from): 27/03/17 - 05/05/17

Elective Subject: The Management of skin cancers at St Richards Hospital Chichester

Host Organisation: St Richards Hospital Chichester

Elective Country: England

Supervisor's Name: Mr Steve Walsh

Supervisor's Contact Details: Swalsh1@nhs.net
07721618933

Date of Receipt of Elective Report:

The student should have provided you with a report of no more than 1200 words that address their four objectives (page 5 of the Elective Report). A free text area is also provided below if you wish to provide further information on the student's performance.

Please rate the student's:

attendance (0-10): 10/10 **ability to work as part of a team (0-10):** 10/10

motivation/engagement (0-10): 9/10 **report (0-10):** 9/10

As a guide 10 = Excellent, 5 = satisfactory, and 0 = unsatisfactory. If a score of less than 5 has been awarded for any of the above categories please give details of the reasons for the poor grade.

• General comments on the student's performance

Tom was excellent in his enthusiasm and at seeking & finding opportunities.

Tutor/Supervisor's Signature: [signature] **Date:** 9/6/17

Please return to the student while they are with you or email this form back to the student with a copy direct to: mbbs-year5-admin@qmul.ac.uk within one week of receipt. Many thanks for your help in this matter. (It is generally preferable to complete this form before the Student completes their elective).

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