

Surgical Margins and follow up of Squamous Cell Carcinoma

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- Poor registration
- Well established projected increase in incidence for next 2 decades
- Significant morbidity but relatively low mortality
- Poor evidence
- Pathology Guidance
- Clinical scenarios
 - Risk factors for metastases
 - Commissioning issues

- 1-0.1% Aks transform to SCCs in low risk population

- The need for complete removal or treatment of the primary tumour
- The possible presence of local in transit metastases
- The tendency of metastases to spread by lymphatics to lymph nodes

FACTORS AFFECTING METASTATIC POTENTIAL OF CUTANEOUS SCC

- Site
- Clinical size
- Histological features
- Host factors
- Bowens disease
- Ulcers

Risk Factor Histology

- **Size: Depth and level of invasion**
- Tumours greater than 4 mm in depth (excluding surface layers of keratin)
- **RCPATH 2mm**
- subcutaneous tissue (Clark level V) increased recurrence and metastasize (metastatic rate 45.7%) compared with thinner tumours.
- Tumours <2 mm in thickness rarely metastasise.

Royal College of Pathologists
Dataset for the histological
reporting of primary cutaneous
squamous cell carcinoma and
regional lymph nodes

October 2012

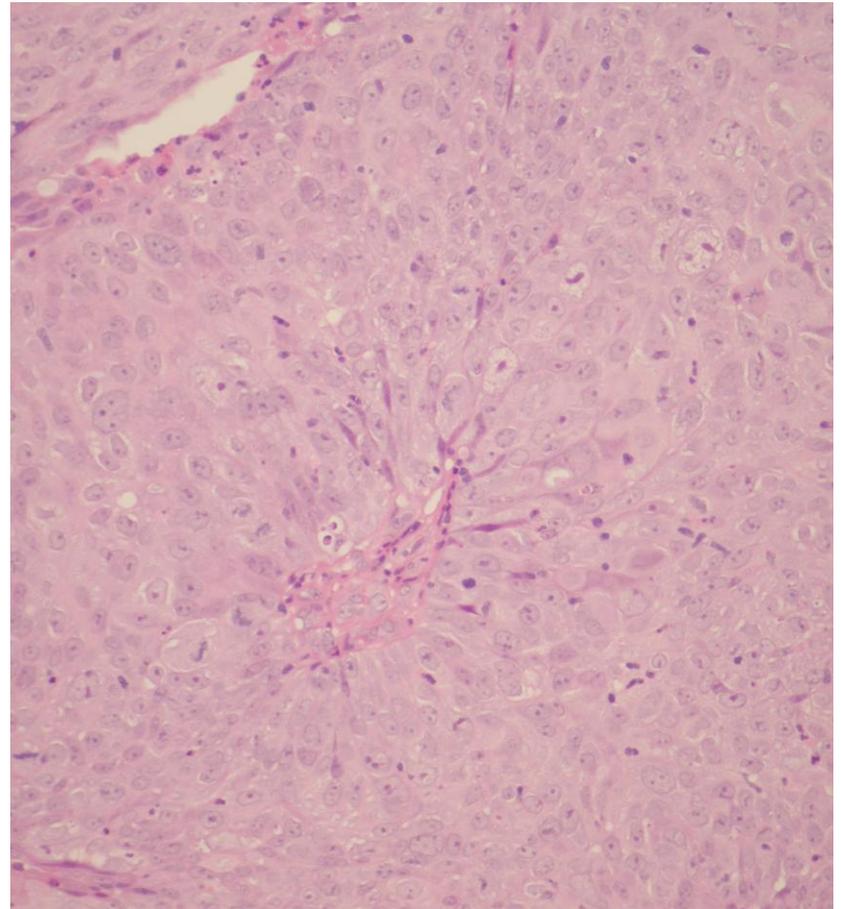
www.rcpath.org/Resources

- [?] COSD published by NCIN
- [?] Clinical guidelines published by the British Association of Dermatologists (BAD) and other professional bodies.
- [?] World Health Organization (WHO) Classification of Skin Tumours
- [?] Armed Forces Institute of Pathology (AFIP) Atlas of Tumour Pathology
- [?] National Institute for Health and Clinical Excellence (NICE) Guidance on Cancer Series
- [?] National Cancer Peer Review (NCPR) Program by the Department of Health Cancer Action Team
- [?] NHS Evidence
- [?] National Comprehensive Cancer Network (NCCN)
- [?] College of American Pathologists (CAP).

Risk factor- histology

- **Histological differentiation and subtype**
- **New :**
 - Well differentiated**
 - Moderately differentiated**
 - Poorly differentiated**
- Poorly differentiated tumours (i.e. those of Broders grades 3 and 4) have a poorer prognosis,
 - double the local recurrence rate
 - triple the metastatic rate of better differentiated SCC.

 - Acantholytic, spindle and desmoplastic subtypes have a poorer prognosis
 - Tumours with perineural involvement, lymphatic or vascular invasion are more likely to recur and to metastasize.



High-risk pathological factors for skin cancer MDT

- Any one equals high-risk status
 - i Type: acantholytic, desmoplastic, spindle/metaplastic/sarcomatoid
- Spindle only if previous radiotherapy/ Adenosquamous SCC with adjacent Bowens
- **RCPATH: any of above**
- ii Grade: poorly differentiated Moderately differentiated
- **RCPATH: poorly differentiated**
- iii Perineural invasion present
- **RCPATH: perineural invasion present**
- iv Lymphovascular invasion present
- **RCPATH: lymphovascular invasion present**
- v* Thickness > 4 mm Thickness > 2 mm
- **RCPATH: thickness >4 mm**
- vi* Clark level ≥5 Clark level ≥4
- **RCPATH: Clark level ≥5**
- vii TNM pathological (p) stage T2,3,4
- **RCPATH: T2, T3, T4**

- AFIP WHO/AFIP BAD /AJCC7/NCCN BAD (table)/NCCN /NICE/AJCC7/UICC7

RCPATH Dataset

Risk stratification- low or high risk

Low risk discharge

High risk 2-5 y follow up

- Histological margins
 - <1mm
 - 1-5mm
 - >5mm

Risk factor – local metastasis

- SCC may give rise to local metastases discontinuous with the primary tumour.
- in- transit metastases
 - by wide surgical excision
 - irradiation of a wide field around the primary lesion.
- **Small margins may not remove metastases in the vicinity of the primary tumour.**
- **Locally recurrent tumour may arise either due**
 - to failure to treat the primary continuous body of tumour
 - or from local metastases

BAD Guidelines 2009

- The gold standard for identification of tumour margins is histological assessment,
- most treatments rely on clinical judgement. this is not always an accurate predictor of tumour extent, particularly when the margins of the tumour are ill-defined.

Excision margins

- In a prospective case series of 141 SCCs,
- 4-mm margin subclinical microscopic tumour extension in more than 95% of **well-differentiated tumours** up to 19 mm in diameter.
- 6 mm to 10 mm were needed for
 - Larger
 - less-differentiated tumors
 - tumors in high-risk locations (e.g., scalp, ears, eyelids, nose, and lips).

Lansbury L, Leonardi-Bee J, Perkins W, et al.: Interventions for non-metastatic squamous cell carcinoma of the skin. Cochrane Database Syst Rev (4):

CD007869, 2010.

- There is little or no good-quality evidence that allows direct comparison of outcomes for patients with sporadic, clinically localized SCCs treated with local therapies.
- A systematic literature review found only one randomized controlled trial in the management of such patients, and that trial compared adjuvant therapy to observation after initial local therapy rather than different local therapies. [[2](#)]

Follow up

- Seventy five percent of local recurrences and metastases are detected within 2 years and 95% within 5 years
- high-risk SCC to be kept under close medical observation for recurrent disease for at least 2 and up to 5 years

Breuninger H. Diagnostic and therapeutic standards in interdisciplinary dermatologic oncology. Published by the German Cancer Society 1998.

Rowe DE, Carroll RJ, Day CL. Prognostic Factors for local recurrence, metastasis and survival rates in squamous cell carcinoma of the skin, ear and lip. *J Am Acad Dermatol* 1992; **26**: 976-90.

Additional tumours

- patients who develop one SCC have a 40% risk of developing additional SCCs within the next 2 years.
- This risk is **likely** even greater as more time elapses.
- Thus, patients with a history of SCC should be evaluated with a complete skin examination every 6-12 months.
- National Cancer Institute: PDQ® Skin Cancer Treatment. Bethesda, MD 2012

- lack of randomised controlled trials (RCTs) for the treatment of primary cutaneous SCC.
- varying malignant behaviour of tumours
histological diagnostic category of primary cutaneous SCC.
- Plastic and maxillofacial surgeons predominantly high-risk, aggressive tumours
- Dermatologists may deal predominantly smaller and less aggressive lesions.

BAD Audit points

- **AUDIT POINTS**
- **1 Surgical excision margins: Are the margins of excision (recommended: 4 mm for well- defined, low risk tumours and 6 mm for high risk tumours) appropriate and clearly documented in the medical notes?**
- **Revalidation**

The UK National Histopathology Request form for skin biopsies

Date of surgical procedure

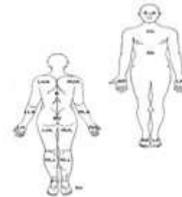
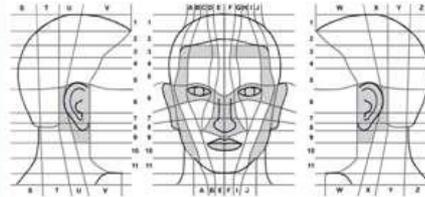
Please attach patient details

Name of surgeon

Grade of surgeon: Nurse,
Specialist trainee, Consultant, Hospital Practitioner,
Other

Clinical diagnosis: free text

Mandatory for Clinician to complete:	First biopsy	Second	Third	Fourth
Site Code as per image (insert LUL etc)				
Clinical Diagnosis (select either BCC, SCC, Melanoma, Atypical Mole, other tumour or other). For inflammatory lesions add clinical details as free text.				
Clinical size of lesion sampled (max diameter) (mm)				
Intention of the surgeon (select biopsy, excision or curative curettage)				
Procedure (select curettage, shave biopsy, punch, incisional biopsy or excision)				
For tumours give measured surgical clinical margin (mm)				
Is this a recurrent tumour?	Y/N	Y/N	Y/N	Y/N
Is the patient immunocompromised?	Y/N			
Is this a tumour arising in areas of radiation or thermal injury, chronic draining sinuses, chronic ulcers, chronic inflammation or Bowen's Disease	Y/N	Y/N	Y/N	Y/N
Is this a tumour arising in a genetically predisposed individual?	Y/N			



Please mark site of samples taken on the above images. For head and neck skin cancers the site code will be made up of the number in the horizontal grid and the letter from the vertical grid (e.g. for a tumour in the middle of the nose that might be code 8E). Where a lesion lies across grid lines then that grid reference in which the greater part of the tumour lies should be used OR if the lesion impacts on a grey shaded area or on the lips then that code should be used. Where the tumour is on the marked lips then the code LIP should be used. For tumours outside the head and neck the letters are indicated on the body map. e.g. a tumour on the left lower arm is LLA).

Free text

Conclusion

- What are we going to do ?
 - audit tool for outcome ?
- Do we need to do anything ?
 - Should follow up of non immunocompromised individuals be devolved to CCGs?
 - Follow up for high risk SCCs 2-5 y?
- But consensus and equity is important – wide variations in practice based on anecdote
- NICE work programme
 - Scoping document submitted