Basal Cell Carcinoma

Guidelines for Management in the Primary Care Setting

Basal cell carcinoma (BCC) is the most common cancer in Australia. As it is a slow-growing, locally invasive tumour, morbidity results from local tissue destruction, but metastasis is extremely rare. There are several treatment options, depending on the presence of high risk features and other patient-related factors. Adequate primary treatment is essential as recurrent tumours are more difficult to cure than primary disease. BCC occurring on the head and neck can be staged using the AJCC 2018 staging system that is used for cutaneous SCC.

HIGH RISK FEATURES

- Tumours >10mm on head and neck or >20mm on trunk and extremities (except for superficial BCC that can be managed non-surgically)
- Facial tumours (around eyes, nose, ears)
- Poorly defined margins or induration
- Aggressive histologic subtypes (micronodular, infiltrating, morphoeic, basosquamous/metatypical)
- Symptoms that may indicate perineural invasion (tingling, pain, paraesthesia, formication, dysaesthesia, impaired motor function)
- Fixation to underlying structures or location over important structures
- Recurrent or incompletely excised tumours
- Genetic predisposition (e.g. Gorlin Syndrome, Xeroderma Pigmentosum)
- Immunosuppression

Specialist referral should be considered when high risk features are identified.

PRIMARY THERAPEUTIC OPTIONS

In addition to the presence of high risk features, the choice of treatment is influenced by patient factors including age, general health and co-morbidities.

Surgical excision

Most low-risk cases can be excised with a 2-3mm margin. Aggressive subtypes require a wider surgical margin of at least 3-4mm; however, some cases may require much wider margins and referral for frozen section or Mohs micrographic surgery may be appropriate.

Other techniques

These methods are generally not suitable for cases with high risk features, but may be appropriate for patients who will not tolerate surgery. They can be used in combination.

- Cryotherapy
- Curettage and cautery

Specialist referral is required for other treatment options such as Imiquimod, photodynamic therapy and radiation therapy.

HISTOPATHOLOGY REPORT

This should include

- Subtype
- Tissue level of invasion (not required for superficial BCC)
- Perineural invasion including location and diameter of nerves involved, as well as margin clearance
- Lymphovascular invasion (only for basosquamous carcinoma)
- Margin clearance including growth pattern at involved margin and extent of involvement

Tumour diameter should be recorded by the clinician prior to excision as tissue shrinkage occurs after excision and also during specimen fixation and processing.

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Histological margins

For low risk tumours, a histological margin of 0.5mm is adequate. In high risk tumours a minimum histological clearance of 1mm is desirable.

In incompletely excised primary tumours, the risk of recurrence is higher when:

- Both deep and peripheral margins are involved
- The deep margin is involved (33% versus 17% for lateral margin involvement)

Incompletely excised tumours in high risk sites, particularly if an aggressive subtype, should be referred for specialist opinion.

Perineural invasion (PNI)

This is a rare occurrence and requires no further treatment if present in a low risk pattern.

- Incidentally detected (i.e. no clinical symptoms)
- Focal and close to advancing edge of tumour
- Involves dermal nerves no larger than 0.1mm diameter
- At least 1mm from margin

The high risk pattern of PNI is defined by the presence of either of the following features:

- Involvement of nerves deeper than in the dermis (any size)
- Involvement of dermal nerves ≥0.1mm in diameter

The following features should prompt pathologists to examine deeper levels for high risk PNI:

- The presence of multiple foci of PNI
- Involvement of nerves outside the main body of the tumour
- Foci of inflammation around nerves

Clinical or radiological involvement of named nerves is also a high risk feature that upstages the tumour and necessitates specialist referral.

High risk PNI is usually seen in association with BCC arising in the head and neck, and surgical clearance cannot always be achieved in this location due to anatomical restrictions. In such cases, the patient should be referred for specialist opinion (radiation oncology or hospital skin cancer unit). In locations other than the head or neck, re-excision to achieve a minimum histological clearance of at least 2mm for high risk PNI is recommended. Specialist referral in these cases is also recommended if surgical clearance cannot be achieved.

FOLLOW UP

- No specific follow up is required for low risk tumours that have been completely excised.
- Patients with any high risk features should be followed up at 3 months then every 6 months, including neurological and nodal examination. For those who are immunosuppressed or who have PNI, 6 monthly imaging is recommended. MRI is the most sensitive modality for assessing nerves.
- Patients who have been treated with ablative techniques should be followed up at 3 months then every 6 months for 3 years. This should be followed by at least annual professional examinations supplemented by 3-monthly self-examinations.
- Annual skin examination is recommended for all patients who have had skin cancer.

For further information please contact:

Dr Patricia Renaut FRCPA; MBBS; BSc (Hons)
Consultant Histopathologist
Dermatopathologist
P: (07) 3121 4607 **E:** Patricia.Renaut@qml.com.au

Dr Debra Norris FRCPA; MBBS (HONS)
Pathologist in Charge - Histology
Haematopathologist (member EAHP), Dermatopathologist
P: (07) 3121 4444 **E:** DNorris@qml.com.au

Specialist Diagnostic Services Pty Ltd (ABN 84 007 190 043) t/a QML Pathology PUB/MR/868_V4_Nov17