Skin Cancer follow up guidelines

MERSEYSIDE & CHESHIRE Skin Cancer Centre

Summary of Changes May 2021 (Post – Covid)

Melanoma
'Staging CT' for melanoma should include MRI head prior to referral for systemic treatment

High Risk CT scanning protocol (pT4b or palpable nodal disease or positive sentinel nodes if immunotherapy considered – should include neck)

Under COVID action plan, some patients were not offered Sentinel Lymph node biopsy

1. For these patients regional recurrence is a greater risk and recommendation is for face to face review for the first year.

2. Ultrasound surveillance for these patients is currently not offered routinely; but 4-6 monthly for three years is recommended and should be performed locally wherever possible. More frequent scanning for the first year (particularly for those with a higher Breslow thickness/stage) should be considered. If multiple lymph node basins included; please scan all appropriate as the sentinel node is unknown.

3. For those in longer term follow up for melanoma, SCC, Merkel cell Carcinoma and DFSP, please return to face to face clinics.

Eagle FM closed

Mini-tub trial resumed

Paediatric Melanoma guidelines published January 2021

Non-melanoma skin cancer
New British Association of Dermatology SCC guidelines updated

Merkel Cell Carcinoma consider adding to high risk scanning protocol and follow up protocol

Avelumab is NICE recommended either in untreated disease or post chemotherapy treatment

Skin Cancer Management guidelines

MERSEYSIDE & CHESHIRE Skin Cancer Centre

If **NEW serious diagnosis** given:

1. Inform GP within 24 hours
2. Offer patient copy of consultation letter
3. Offer prescription exemption information if appropriate
4. Provide contact details of key worker (usually skin cancer CNS)
5. Offer holistic needs assessment (within 31 days of diagnosis)
6. Consider serial photography, particularly for melanoma patients. Encourage patients to bring own photographs on their digital devices.

DIAGNOSIS	ACTION	**FOLLOW UP ACTION** *NB Follow up to be discussed with patient – Back to Referrer/Local or Specialist Nurse-led clinics*
Malignant Melanoma		
Clinically suspected melanoma	2 mm margin excision biopsy	**Follow up 2 to 3 weeks for results Ensure histopathology result available**
***In situ* melanoma or lentigo maligna excised ≥5mm margin**	Refer LSMDT	**Discharge**
***In situ* melanoma or lentigo maligna close margin (<5mm)**	Refer LSMDT Discuss WLE to achieve 5 mm margin	**Discharge if adequate margins**
Melanoma stages 1 and 2		
Thin melanoma – <0.8mm Breslow (stage pT1a)	Refer LSMDT Offer WLE of 1 cm *including superficial fascia, down to muscle fascia wherever possible due to anatomical constraints***	**Follow up 1 year review 2-4 times during year Whole skin exam & local lymph nodes**
Two Primary melanomas pT1a	Refer LSMDT Offer 1cm WLE *with superficial fascia***	**Follow up 5 years with local Dermatology services Whole skin exam & local lymph nodes**
Primary Melanoma 0.8mm to 1mm without ulceration (Stage 1b)	Refer SSMDT Offer 1cm WLE *including superficial fascia*** and SLNB BRAF test Provide SLNB leaflet to aid discussion	**Follow up 5 years Whole skin exam & local lymph nodes 3 monthly for 3 years then 6 monthly for further 2 years**
Melanoma 0.8mm Breslow or less with ulceration or Intermediate thickness melanoma – 1 mm to 2 mm	Refer SSMDT Offer 1-2cm WLE *with superficial fascia*** and SLNB Provide SLNB leaflet to aid discussion BRAF test	**Follow up 5 years (see above and additional information below)**
Intermediate thickness melanoma – 2-4 mm	Refer SSMDT Offer WLE 2 cm *including superficial fascia*** and SLNB Provide SLNB leaflet to aid discussion BRAF test	**Follow up 5 years (see above)**

DIAGNOSIS	ACTION	FOLLOW UP ACTIONS
Thick melanoma (>4mm) AND NOT ulcerated	Refer SSMDT Offer WLE 2 cm *including superficial fascia*** and SLNB Provide SLNB leaflet to aid discussion BRAF test	**Follow up 5 years (see above)** **Genetic/BRAF testing**
Thick (>4mm) AND Ulcerated melanoma	Refer SSMDT Offer WLE 2 cm *including superficial fascia*** and SLNB (CT staging ***prior to*** SLNB)	**Follow up 5 years (see above)** **Consider contrast CT of Chest abdomen and pelvis every 6 months for 3 years and then annually for further 2 years (CT head if head and neck primary)**
Melanoma with lymph node disease (Stage 3) [see page 13]		
Positive Sentinel nodes - not head and neck **Stage 3A** **(Microscopic AND low burden disease)**	Refer SSMDT Consider mini-tub trial (EORTC–1208-MG) if subcapsular (no parenchymal) ≤ 0.4mm nodal deposit **Or** ≤ 0.1mm any nodal deposit CT scan Chest, abdomen and Pelvis	**Follow up 10 years as per guidance (ALL lymph nodes)** **Consider referral to trial team** **If not for Mini-tub please consider Regional Lymph node ultrasound** Mini-tub involves: USS follow up 3-4 monthly 2 years 6/12 3-5 years, annual 6-10 years CT scan annually for 10 years
Positive Sentinel nodes- not head and neck **AND** **≤2mm** **OR** **No Extracapsular spread**	Refer SSMDT Arrange CT chest, abdomen and pelvis (urgent with contrast) and MRI brain FBC, U & Es, LFT and LDH Refer to Oncology if 1mm -2mm SLNB deposit(s) or ≥p2b with micromets and if able to travel and performance status 0-2 BRAF test	**Follow up 10 years as per guidance (ALL lymph nodes)** **See high risk melanoma imaging contrast CT of Head, Chest abdomen and pelvis:** **6 monthly for 3 years & 12 monthly for 2 years (See page 12)** **SSMDT to consider PET scan if groin positive node** **SSMDT to consider Trial**
Positive Sentinel nodes (not head and neck) AND >2mm Or Extracapsular spread	Refer SSMDT Arrange CT chest abdomen and pelvis (urgent with contrast) FBC, U & Es, LFT and LDH Consider lymph node dissection **Pelvic dissection:** ▪ >1 clinically palpable groin LN ▪ CT or ultrasound evidence of >1 groin node(s), or of pelvic node involvement ▪ >1 macroscopically involved sentinel node at SLNB >2mm metastasis ▪ A conglomerate of inguinal or femoral triangle lymph nodes ▪ Micro/macroscopic involvement of Cloquet's node	**Follow up 10 years as per guidance (ALL lymph nodes)** **See high risk melanoma imaging contrast CT of Head, Chest abdomen and pelvis:** **6 monthly for 3 years & 12 monthly for 2 years (See page 12)** **Genetic/BRAF testing** **SSMDT to Consider PET scanning if for pelvic lymphadenopathy** **MRI brain** **Refer after Surgery to Oncology for adjuvant therapy if able to travel and performance status 0-2**

DIAGNOSIS	ACTION	FOLLOW UP ACTIONS
Melanoma Positive sentinel nodes (any size) Head and neck	Refer SSMDT (Head and Neck Consultant) Arrange CT Chest abdomen and pelvis (urgent with contrast) Arrange MRI brain and neck FBC, U & Es, LFT and LDH Offer dissection of affected lymph node basin (SSMDT)	**Follow up 10 years as per guidance (ALL lymph nodes)** **See high risk melanoma imaging follow up (see above and page 12)** **Genetic/BRAF testing** **<u>Refer after Surgery to Oncology</u> for adjuvant therapy if able to travel and performance status 0-2**
Palpable lymph node (possible melanoma)	Refer SSMDT FNA (consider US guided) Only 2 inconclusive attempts before open biopsy	**Follow up 1-2 weeks for FNA results** **See above for pelvic dissection decision**
Melanoma Radiotherapy	Refer SSMDT Refer patients with: Node ≥3 cm axilla, ≥4 cm groin or ≥3 nodes Extracapsular spread or Extracapsular spread for head and neck or ≥3cm Consider surgical resection margins; if in doubt refer for radiotherapy. (May not be offered by Oncology due to morbidity & balance survival advantage)	**Follow up 5 years (ALL lymph nodes)** **Then annually for further 5 years**
Relapse melanoma	Refer SSMDT For MDT discussion & consider trials Refer to Oncology if ≥Stage 3b disease Staging CT Chest, abdomen and Pelvis and MRI brain	**Follow up 5 years (whole skin exam and ALL lymph nodes)** **Then annually for 5 more years**
Melanoma in younger people (less than 24)	If stage 3 disease or greater consider whole body MRI for staging (SSMDT) Refer to TYA MDT	**1 year stage 1** **5 years if stage 2** **10 years if Stages 3-4 (SSMDT to consider planning for imaging)**
Palpable melanoma proven lymphadenopathy or High risk melanoma Stage 4	Refer to SSMDT Consider Surgical resection and Oncology referral (stage 4 resected)	**Follow up 5 years (whole skin exam and ALL lymph nodes)** **Then annually for 5 years** **AND** **CT Head, Chest, abdomen and pelvis + neck first and MRI brain if <24yrs), then 6 monthly for 3 years & 12 monthly for 2 years (CT only)**
Melanoma in Pregnancy	Refer SSMDT WLE and consider SLNB and general Anaesthetic Risks according to trimester of pregnancy. Consider risks:1st Trimester risks for GA Palpable lymph node disease for SSMDT discussion in conjunction with Obstetrician for early delivery or termination (see page 10)	**If <0.8mm review until 1 year after delivery** **Consider risk to pregnancy for each trimester** **Follow up 5 years otherwise**

DIAGNOSIS	ACTION	FOLLOW UP ACTIONS
<u>Cutaneous Squamous cell carcinoma (see page 9) for reference</u>		
*In **situ*** **SCC (Bowen's disease)**	Treat topically (e.g. Efudix, Aldara, PDT, cryotherapy, curettage etc.)	**Refer back to origin if low risk and/or biopsy proven**
For invasive cSCC a full skin check is required with examination of regional lymph node basins, patient education about sun protection and skin surveillance and warned about the risk of further cSCCs. *There is a 40% chance of further keratinocyte carcinoma within 5 years. If more than 1 previous keratinocyte carcinoma then risk is doubled to 80% within 5 years.* *After discharge if patients suspect further cSCC for referral under 2 week wait pathway via GP.*		
Low risk cSCC	No LSMDT referral needed Clinical excision 4 mm margin	**Discharge after single appointment if completely excised with histological ≥1 mm margins**
High Risk cSCC	Refer LSMDT for those with close or involved pathological margins and/or more than 1 risk factor	**Follow up every 4 months for 1 year** **If more than 1 risk factor then 6 monthly review in second year**
Very High risk cSCC	Consider SSMDT referral for opinion or management	**Follow up 3 years:** **Every 4 months for two years** **Every 6 months for final year**
Scalp SCC with narrow (≤1mm) or incomplete deep margin	If head and neck SCC either incompletely excised or histologically narrow deep margin (<1mm) *<u>Refer to SSMDT or Head and Neck MDT (Max fac/ENT) according to local rules</u>*	**Consider further treatment with WLE and/or radiotherapy** **Follow up 3 years**
High risk SCC with management difficulty	Refer SSMDT Consider Cemiplimab	**Follow up 3 years**
Palpable lymph node	FNA Open biopsy if two failed attempts	**Follow up ≤ 3 weeks for results** **If positive SSMDT referral**
Metastatic SCC	Refer SSMDT Consider Oncology referral if not resectable	**CT Chest and Abdomen (+/- Pelvis for lower body) + MRI Neck for Head and Neck**
<u>Atypical Fibroxanthoma</u>		
AFX **(Although not strictly malignant)**	**Refer LSMDT** Offer **clinical** 6mm WLE	**If completely excised with good margins discharge** **(treat as per well diff SCC)**
<u>Merkel Cell Carcinoma</u>		
Merkel Cell Carcinoma	Refer SSMDT Plan CT staging, 1 to 3cm WLE including fascia and SLNB Offer post op radiotherapy to primary and lymph node basins - Early metastasis common (50%).	**Close follow up** **High risk CT scanning protocol** **Consider PET CT imaging** **3/12 for 5 years**

DIAGNOSIS	ACTION	FOLLOW UP ACTIONS
Basal Cell Carcinoma		
Low risk site and type of BCC	Excision 3-4 mm radial margin	**Discharge if completely excised**
High risk site and low risk BCC type	Consider excision 4 mm margin	**Discharge if completely excised**
High risk site and type	Consider excision with Mohs (or 10-15 mm margin)	**Discharge if completely excised**
Incompletely excised radial margin BCC (or close margins)	Offer observation or re-excision for low risk High risk offer re-excision/Mohs/ radiotherapy	**3/12 for 1 year** **Then 6/12 for further 1 to 2 years**
Incompletely excised BCC (Deep margin)	Offer wider excision, radiotherapy or Mohs	**3/12 for 1 year** **Then 6/12 for further 1 to 2 years**
Large, multiple or inoperable BCC	Consider referral to Oncology Refer to SSMDT	**Follow up shared on a case by case basis**
Dermatofibrosarcoma protuberans		
Dermatofibrosarcoma protuberans (DFSP)	Refer to SSMDT Offer >1cm wider excision including fascia	**Follow up local recurrence and lymphatic basins, late local recurrence common** **10 year follow up**
Fibrosarcomatous changes within DFSP (treat as soft tissue sarcoma)	Refer Sarcoma MDT 3-5cm Wider excision including fascia 10% risk of lymph node metastasis CT staging Chest, abdomen and pelvis	**Follow up local recurrence and lymphatic basins, late local recurrence common** **Consider Chest X-rays every 6-12 months for 5 years** **10 year follow up**
Pleomorphic Sarcoma		
Pleomorphic Sarcoma (previously known as Malignant Fibrous Histiocytoma)	**Refer Skin MDT if above fascia and less than 4cm in size; otherwise refer Sarcoma MDT.** **Offer Wide excision with >1cm including superficial fascia**	**Follow up 3 years** **(3/12 for one year then 4/12 for one year then 6/12 for one year)** **Consider CT at diagnosis (Chest, abdomen and Pelvis)**

Notes and exceptions

Young people aged 16-24 years should also be referred to the TYA (Teenage and Young Adult) MDT, consider offering MRI investigations instead of CT (caution with interpretation of chest MRI scans)

1. Patients with palpable lymph nodes should not be offered SLNB.
2. Those with primary sites that have been reconstructed with a skin graft should be discussed with a nuclear medicine Consultant to consider suitability for SLNB.
3. If SLNB declined, offer imaging in consultation with SSMDT (see NICE guidelines).

For long term follow up consider:

1. Refer patient back to local dermatology team / nurse led clinic for either alternating or shared care, avoiding duplication of appointments and consideration of distance to travel.
2. Teach patient how to perform skin self examination
3. Offer smoking cessation advice.
4. Offer HNA during treatment, once treatment is complete.
5. Offer the patient the opportunity to attend a health and well being clinic/ event within 6 months of completion of treatment.
6. Offer end of treatment summary once treatment is complete.
7. Provide information on reducing sun exposure.
8. Measure serum Vitamin D levels at diagnosis and treat accordingly using local Vitamin D guidance (page 8).

The Melanoma Major Changes from AJCC 7th Edition are:

T group	Change of T1a thickness from 1mm to 0.8mm and ulceration significant (mitoses not significant) Pathology of T to nearest 0.1mm. Tis, T0 and Tx can be used in staging
N group	Clinically occult replaces “microscopic” and “macroscopic” and clinically apparent for palpable clinical regional lymph node disease. Increased stratification of non-nodal regional disease according to number of tumour involved nodes
M group	Defined by distant anatomical sites and LDH status for each group (elevated LDH is not M1c) New M1d sub group

Notes on Sentinel lymph node biopsy from AJCC 8th Edition

1. **Not recommended** if Stage 1a and less than 0.76mm (pre-test probability of 3% of positive result)
2. For stage 1a and 0.76-1mm with no ulceration and <1mm^2 mitoses – **Consider** SLNB according to AJCC 8th edition (not NICE guidelines currently) as 7% pre-test probability of positive result.
   For AJCC 8th edition stage 1b (0.76mm to 1mm with ulceration) **offer** SLNB as pretest probability is higher

ECOG PERFORMANCE STATUS	
GRADE	
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all self-care but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited self-care; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any self-care; totally confined to bed or chair
5	Dead

Staging adapted from Melanoma of the Skin AJCC 8th Edition (2018)

Primary Tumour:	
Tx	Primary tumor thickness cannot be assessed (eg, diagnosis by curettage)
T0	No evidence of primary tumor (eg, unknown primary or completely regressed melanoma)
Tis	Melanoma in situ
T1a	<0.8 mm without ulceration
T1b	0.8-1.0 mm without ulceration or <0.8mm with ulceration
T2a	>1.0-2.0 mm without ulceration
T2b	>1.0-2.0 mm with ulceration
T3a	>2.0-4.0 mm without ulceration
T3b	>2.0-4.0 mm with ulceration
T4a	>4.0mm without ulceration
T4b	>4.0mm with ulceration

Nodal status	
Nx	Regional nodes not assessed (eg, sentinel lymph node [SLN] biopsy not performed, regional nodes previously removed for another reason); Exception: pathological N category is not required for T1 melanomas, use clinical N information
N0	No regional metastases detected
N1a	One clinically occult (ie, detected by SLN biopsy)
N1b	One clinically detected
N1c	No regional lymph node disease. With satellites or in-transit disease and/or microsatellite metastases
N2a	Two or 3 clinically occult (ie, detected by SLN biopsy)
N2b	Two or 3, at least one of which was clinically detected
N2c	One clinically occult or clinically detected with satellites or in-transit disease and/or microsatellite Metastases
N3a	Four or more clinically occult (ie, detected by SLN biopsy)
N3b	Four or more, at least one of which was clinically detected, or the presence of any number of matted nodes
N3c	Two or more clinically occult or clinically detected and/or presence of any number of matted nodes with satellites or in-transit disease and/or microsatellite metastases

Metastases	[add (0) for Not elevated LDH and (1) for elevated LDH]
M0	No evidence of distant metastasis
M1a	Distant metastasis to skin, soft tissue including muscle, and/or nonregional lymph node
M1b	Distant metastasis to lung with or without M1a sites of disease.
M1c	Distant metastasis to non-CNS visceral sites with or without M1a or M1b sites of disease
M1d	Distant metastasis to CNS with or without M1a, M1b, or M1c sites of disease

Staging

Clinical Staging				Pathological staging			
Stage 0	Tis	N0	M0	**Stage 0**	Tis	N0	M0
Stage 1A	T1a	N0	M0	**Stage 1A**	T1	N0	M0
Stage 1B	T1b or T2a	N0	M0	**Stage 1B**	T2a	N0	M0
Stage 2A	T2b or T3a	N0	M0	**Stage 2A**	T2b or T3a	N0	M0
Stage 2B	T3b or T4a	N0	M0	**Stage 2B**	T3b or T4a	N0	M0
Stage 2C	T4b	N0	M0	**Stage 2C**	T4b	N0	M0
Stage 3	Any T, Tis	≥N1	M0	**Stage 3A**	T1a/b-T2a	N1a or N2a	M0
				Stage 3B	T0	N1b or N1c	M0
					T1a/b-T2a	N1b/c or N2b	M0
					T2b-T3a	N1a or N2b	M0
				Stage 3C	T0	N2b/c or N3b/c	M0
					T1a-T3a	N2c or N3a/b/c	M0
					T3b or T4a	Any N ≥ N1	M0
					T4b	N1a-N2c	M0
				Stage 3D	T4b	N3a/b/c	M0
Stage 4	Any T	Any N	M1	**Stage 4**	Any T	Any N	M1

Risk stratification for cutaneous Squamous Cell Carcinoma

	Low Risk	High Risk	Very High Risk
Tumour	Tumour max. diameter ≤20mm Tumour ≤4mm thickness No Perineural invasion Well or moderate differentiation No Lymphovascular invasion (ALL factors should apply to denote low risk)	Diameter >20-40 mm (pT2) Tumour 4-6 mm thickness Invasion into subcutaneous fat Perineural invasion – dermal only (nerve diameter ≤0.1mm) Poorly differentiation Lymphovascular invasion Tumour of ear, lip or arising in area of chronic inflammation (ANY single factor denotes high risk)	Diameter >40 mm (pT3) Tumour >6 mm thickness Invasion beyond subcutaneous fat Any bone invasion Perineural invasion – named nerve,nerve diameter ≥0.1mmor nerve beyond dermis High grade subtype – Adenosquamous, desmoplastic, spindle/sarcomatoid/metaplastic In-transit metastasis (ANY single factor denotes very high risk)
Margin status	Clear pathological margins in all dimensions ≥1mm	One or more involved or close (<1mm) margin in a pT1 tumour Close pathological margins (<1mm) in a pT2 tumour	One or more involved or close (<1mm) pathological margin in a high risk tumour
Patient factors	Immune competent	Iatrogenic immunosuppression or biological therapies; frailty &/or comorbidities likely to cause some degree of immunocompromised; HIV infection stabilised on HAART	As for High risk especially solid organ transplant recipients, haematological malignancies, (eg CLL or myelofibrosis) other significant immunosuppression

Staging for cutaneous Squamous cell carcinoma (Tumour- Nodes- Metastasis)

T categories	
T1	<2cm in greatest dimension
T2	2 to 4cm in greatest dimension
T3	>4cm in greatest dimension or minor bone erosion or specified perineural invasion (≥0.1mm diameter and/or nerve deeper than the dermis and/or named nerve) or deep invasion (Thickness >6mm and/or beyond sub-cutaneous fat)
T4a	Tumour with gross cortical bone/marrow invasion
T4b	Tumour with skull base or axial skeleton invasion including foraminal involvement and/or vertebral foramen involvement to the epidural space
N categories (Non head and neck)	
N1	Metastasis in a single ipsilateral lymph node ≤3cm greatest diameter
N2	Metastasis in a single ipsilateral lymph node >3cm but ≤ 6cm or in multiple nodes <6cm or in multiple ipsilateral nodes with none >6cm in greatest dimension
N3	Metastasis in lymph node >6cm maximal dimension
N categories (head and neck)	
N1	Metastasis in a single ipsilateral lymph node ≤3cm greatest diameter without ENE
N2a	Metastasis in a single ipsilateral lymph node >3cm but < 6cm without ENE
N2b	Metastasis in multiple ipsilateral lymph nodes, where none are >6cm greatest diameter and without ENE
N2c	Metastasis in multiple or contralateral lymph nodes, where none are >6cm greatest diameter without ENE
N3a	Metastasis in single or multiple lymph nodes >6cm in greatest dimension without ENE
N3b	Metastasis in single or multiple lymph nodes >6cm in greatest dimension with ENE
M categories	
M0	No distant Metastases
M1	Distance metastasis (excluding contralateral lymph nodes non-head and neck cSCC)

ENE = Extranodal extension (or extracapsular extension) can be clinical or pathological

TNM 8th edition for cutaneous Squamous Cell Carcinoma

Stage	T	N	M
1	T1	N0	M0
2	T2	N0	M0
3	T3 T1, T2 or T3	N0 N1	M0 M0
4A	T1, T2 or T3 T4	N2 or N3 Any N	M0 M0
4B	Any T	Any N	M1

Checklist for Completion Lymphadenectomy

Possible advantages of completion lymphadenectomy	Possible disadvantages of completion lymphadenectomy
Removing the rest of the lymph nodes before cancer develops reduces the chance of the cancer returning in the same part of the body.	Lymphoedema (long-term swelling) may develop, and is most likely if the operation is in the groin and least likely in the head and neck.
The operation is less complicated and safer than waiting until cancer develops in the remaining lymph nodes and then removing them.	In 4 out of 5 people, cancer will not develop in the remaining lymph nodes, so there is a chance that the operation will have been done unnecessarily.
People who have had the operation may be able to take part in clinical trials of new treatments to prevent future melanoma. These trials often cannot accept people who have not had this operation.	There is no evidence that people who have this operation live longer than people who do not.
	Having any operation can cause complications.

Checklist for imaging for melanoma high risk patients (Stage 3C or over)

Possible advantages of surveillance imaging (having regular scans)	Possible disadvantages of surveillance imaging (having regular scans)
If the melanoma comes back (recurrent melanoma), it is more likely to be detected sooner. It is possible that this could lead to a better outcome by allowing treatment with drugs (such as immunotherapy drugs) to start earlier.	Although early drug treatment of recurrent melanoma might improve survival, there is currently no evidence showing this.
Some people find it reassuring to have regular scans.	Some people find that having regular scans increases their anxiety.
	Scans expose the body to radiation, which can increase the risk of cancer in the future.
	Scans of the brain and neck increase the risk of developing cataracts.
	Scans of the chest cause a very small increase in the risk of thyroid cancer & increased risk of breast cancer.
	Scans may show abnormalities that are later found to be harmless, causing unnecessary investigations and anxiety.

Imaging for high risk melanoma

- *Stage IIC:*
    - Lesions >4 mm in thickness with ulceration but no lymph node involvement (T4bN0M0) are associated with a 5-y survival rate of ***45%***
- *Stage IIIB:*
    - Patients with any-depth lesion, positive ulceration, and 1 lymph node positive for micrometastasis (T1-4bN1aM0) or 2-3 nodes positive for micrometastasis (T1-4bN2aM0) have a 5-y survival rate of ***50-53%***
    - Patients with any-depth lesion, no ulceration, and 1 lymph node positive for macrometastasis (T1-4a, N1b, M0) or 2-3 nodes positive for macrometastasis (T1-4aN2bM0) have a 5-y survival rate of ***46-59%***
- *Stage IIIC:*
    - Patients with any-depth lesion, positive ulceration, and 1 lymph node positive for macrometastasis (T1-4bN1bM0); 2-3 nodes positive for macrometastasis (T1-4bN2bM0); or ≥4 metastatic lymph nodes, matted lymph nodes, or in-transit met(s)/satellite(s) have a 5-y survival rate of ***24-29%***

At CNG meeting on 28th March 2018, the information above was presented. Consideration for follow up CT scans was discussed. On a case by case basis the risks of radiation, anxiety and cost implications should be discussed with each patient. The approximate risk of each CT scan of Chest, abdomen and Pelvis confers a 0.05% chance of a solid organ malignancy.

Adjuvant therapy for Stage 3 disease

October 2018 NICE approved treatment for braf +ve stage 3 disease treatment with combination adjuvant therapy (Dabrafenib and Trametinib) for one year. Evidence currently doesn't support treatment for those with <1mm micrometastasis. Combi-AD trial 19% reduction disease free survival DFS, but trial inclusion only if >1mm micrometastasis.

December 2018 NICE approved Pembrolizumab for braf wild type disease for 1 year treatment.

Current consensus CQG March 2019 – offer adjuvant therapy for those with >1mm micrometastasis and minimal tumour burden (i.e. have had completion dissection if high risk factors – head and neck primary, extracapsular spread and >2mm disease).

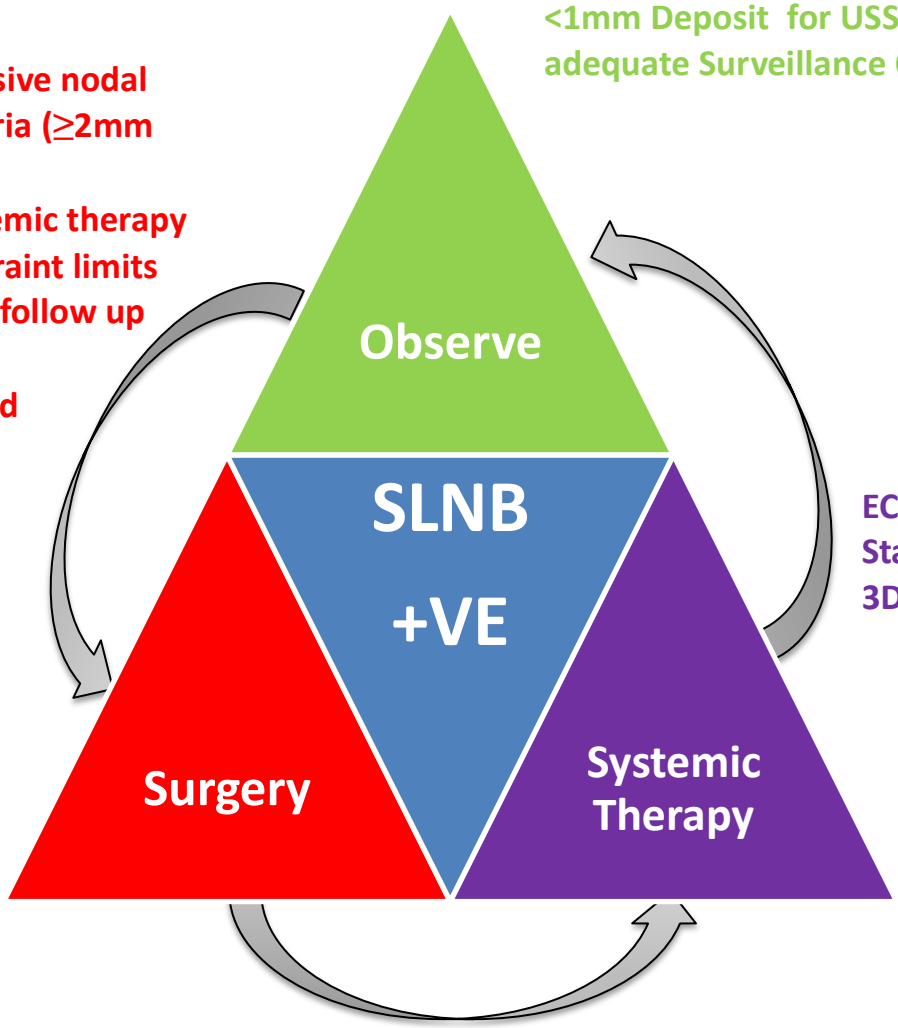
CQG meeting November 2019
Offer CT for stage 4b melanoma prior to SLNB due to increased chance of other metastasis
MRI brain for patients greater than stage 3b.
Melanoma in pregnancy – 1st trimester caution for any operation ,
2nd trimester –may not offer further treatment – question need for SLNB.
3rd Trimester – consider SLNB as likely able to offer completion or immunotherapy.

Decision matrix for adjuvant therapy or further surgery for melanoma

Head and neck site
And/Or

- **Multifocal or extensive nodal met by Dewar criteria (≥2mm deposit)**
- **Unsuitable for systemic therapy**
- **Geographical constraint limits access to adequate follow up therapy**
- **Extracapsular spread**
- **≥3 +ve nodes**

AJCC Stage 3A
<1mm Deposit for USS (Only if adequate Surveillance Opportunities)



ECOG 0-1
Stage 3B, 3C or 3D

Treatment for Stage 3

- Stage 3A
  - pT1a, pT1b and pT2a and N1a or N2a
  - Offer Minitub if eligible or USS surveillance locally.
  - Not for adjuvant therapy if <1mm deposit in sentinel node (< 2mm primary melanoma)
- Stage 3B
  - pT0 and N1b or N1c **OR** pT1a/b-pT2a and N1b/c or N2b **OR** pT2b –pT3a and N1a or N2b
  - Offer surgical excision if immunocompromised, extracapsular spread or >2mm deposit in lymph node.
  - Refer to Oncology for adjuvant treatment if performance status 0-1 and no contra-indications
- Stage 3c
  - pT0 and N2b/c or N3b/c OR pT1a-3a and N2c or N3a/b/c OR pT3b-4a and any n≥n1 OR pT4b and N1a-2c
  - Offer surgical excision if immunocompromised, extracapsular spread or >2mm deposit in lymph node.
  - Refer to Oncology for adjuvant treatment if performance status 0-1 and no contra-indications
- Stage 3d
  - pT4b and N3a/b/c
  - Offer surgical excision if immunocompromised, extracapsular spread or >2mm deposit in lymph node.
  - Refer to Oncology for adjuvant treatment if performance status 0-1 and no contra-indications

REFERENCE (Risk definitions)

Squamous cell carcinoma

Tumour behavior widely variable within the histological diagnostic category of 'primary cutaneous SCC'.

Site:

Tumour location influences prognosis: sites are listed in order of increasing metastatic potential.

Low risk:

- SCC arising at sun-exposed sites excluding lip and ear.

High risk:

- SCC of the lips and ears.
- Tumours arising in non sun-exposed sites (e.g. perineum, sacrum, sole of foot).
- SCC arising in areas of radiation or thermal injury, chronic draining sinuses, chronic ulcers, chronic inflammation or Bowen's disease.

Size:

- >2cm diameter (local recurrence [15.2% v 7.4%] metastatic risk x 3 [30.3% v 9.1%])
- >4mm depth.
- Extending into or beyond subcutaneous tissue (Clark level V) are more likely to recur and metastasize (metastatic rate 45.7% v 6.7%).

Histological differentiation and subtype

Poorly differentiated tumours have a poorer prognosis, with more than double the local recurrence rate and triple the metastatic rate of better differentiated SCC.

- Better prognosis
  - Verrucous subtype
- Worse prognosis (more likely to metastasize)
  - Acantholytic, spindle and desmoplastic subtypes, Marjolin's ulcer
  - Perineural involvement, lymphatic or vascular invasion

Host immunosuppression

- Poorer prognosis.

Previous treatment and treatment modality

- The risk of local recurrence depends upon the treatment modality.
- Locally recurrent disease itself is a risk factor for metastatic disease.

Local circumstances

Follow up in primary care may be a satisfactory option, depending on tumour risk, local circumstances and patient's wishes.

Brigham and Women's staging system (Skin Squamous Cell Carcinoma)

T1 = 0 high-risk factors

T2a = 1 high-risk factor

T2b = 2 to 3 high-risk factors

T3 = ≥ 4 high-risk factors

High-risk factors include: tumour diameter ≥ 2 cm, poorly differentiated histology, perineural invasion ≥ 0.1 mm, and tumour invasion beyond fat (excluding bone invasion, which automatically upgrades to stage T3).

Basal Cell Carcinoma

- Increasing size and poorly defined lesions confer higher risk of recurrence.
- Site – lesions on the central face (the eyes, nose, lips & ears have higher recurrence risk).
- Certain histological subtypes confer higher risk of recurrence; morpheoic, infiltrative, micronodular and basosquamous subtypes.
- Histological features of aggression such as perineural &/or perivascular involvement confer a higher risk of recurrence.
- Recurrent lesions are at higher risk of further recurrence.
- Immunosuppression possibly confers increased risk of recurrence.
- Close radial margins (<0.5mm) warrant discussion with patient about observation or further surgery in some cases (e.g. can't observe due to site or poor vision). Note narrow deep margins harder to observe. Consider that could be incompletely excised if not excised with Mohs technique

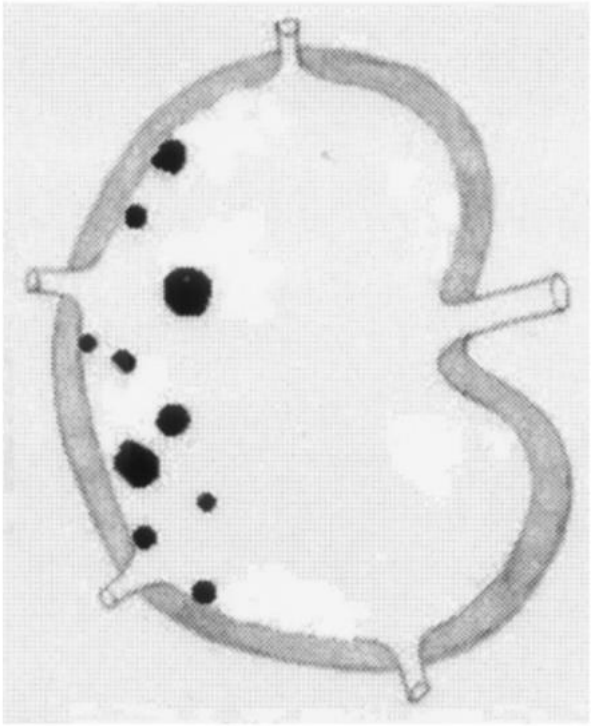
Table 2: Vitamin D treatment guidelines.		
Exclude patients with hypercalcaemia or an eGFR <30mL/minute/1.73m^2. See Appendix 1		
Patient Characteristics	**Recommendations**	**Notes**
Deficiency in adults: **≤30nmol/L** **Or <12ng/mL** **Deficiency:** high dose treatment initially, then long term maintenance treatment required **If deficiency is diagnosed in pregnancy please follow guidelines of your local maternity services provider**	Most UK Guidelines suggest a loading dose of 300,000IU colecalciferol is required to replenish Vitamin D concentration. Various regimes can be considered to achieve this. *Check Vitamin D concentration after 6 months to ensure adequate replacement and/or concordance.* *If >100nmol/L consider reducing dose.* *If still deficient alter dose as necessary.* *If sufficient no further monitoring recommended*	**Treatment Dose:** Due to compliance issues locally Liverpool are suggesting a loading dose is given by either: Colecalciferol 20,000IU orally ONE daily for 15 days OR Colecalciferol 20,000IU orally FIVE daily for 3 days **Maintenance dose:** Colecalciferol 20,000 IU ONE orally once a month *Prescribers can prescribe from a selection of available products to give a total dose as recommended above. See Appendix 2 for further prescribing and product information*
Alfacalcidol is not considered appropriate for community use in Vitamin D deficiency unless advised by specialists due to the risk of hypercalcaemia. See Appendix 3		

Table 2: Vitamin D treatment guidelines.		
Patient Characteristics	**Recommendations**	**Notes**

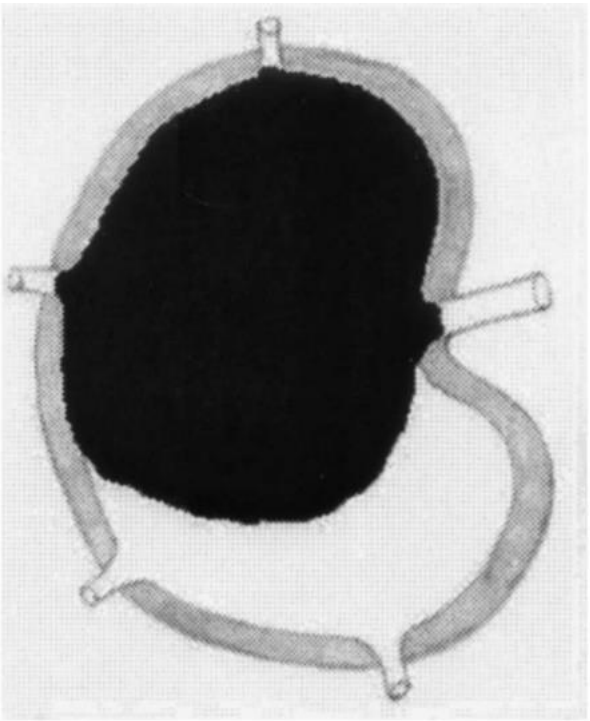
Insufficiency in adults:
 	
>30 to 50nmol/L
Or
>12-20ng/mL
 	
Insufficiency: Maintenance treatment likely to be required
	There is currently a lack of evidence on the functional outcomes of populations with insufficient vitamin D concentration to justify the treatment of all patients with insufficiency.
	
	Assess patient holistically
	Consider prescribing if symptomatic & at risk / previously deficient/ unlikely to take supplements / breast feeding or considering pregnancy / wintertime
		Maintenance dose:
		• Vitamin D equivalent to 800IU daily e.g. Vitamin D 400IU (10mcg) tablets. One tablet twice daily for life.
		  • A range of Vitamin D tablets are available to buy from community pharmacies, health food stores or via prescription. (See Appendix 2)
		  • Calcium and Vitamin D tablets e.g Calcichew D3 Forte and Adcal D3 are licensed preparations available on prescription and can be considered for maintenance treatment
		Or where compliance may be an issue
		• Colecalciferol 20,000IU one capsule per month available via prescription

Healthy or at risk adults **>50-75nmol/L** **Or > 20ng/mL** Symptom free	Lifestyle advice Can consider daily self treatment with over the counter purchased supplement of 400-800IU Vitamin D daily	Over the counter products contain amounts likely to prevent rickets/osteomalacia, but are unlikely to raise Vitamin D concentration to optimal in most people who are deficient. NB prevention may be needed in older people / housebound / in institution

Dewar Criteria for lymph node metastases:



Multifocal metastases



Extensive nodal metastasis

Dewar et al 2004 JCO

ABBREVIATIONS:

AJCC – American Joint Cancer Committee	SLNB – Sentinel Lymph node biopsy
C & C – Curettage and cautery	SSMDT – Specialist Skin Multidisciplinary Team
ENE – Extranodal extension	TYA – Teenage and Young Adult
FNA – Fine needle aspiration for cytology	WLE – Wide local excision
HAART – Highly active antiretroviral therapy	
LSMDT – Local skin Multidisciplinary Team	
NICE – National Institute for Health and Care Excellence	