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BSDS British Society for Dermatological Surgery EST 1983

BSD British Society for Dermatopathology Established 1974

BOPSS
British Oculoplastic Surgery Society

BAD British Association of Dermatologists
healthy skin for all

Service Guidance and Standards

For

Mohs Micrographic Surgery (MMS)

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NICE accredited
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NICE has accredited the process used by the British Association of Dermatologists to produce Service Guidance and Standards. Accreditation is valid for 5 years from 7 March 2017.

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Preface

Assessment of performance against accredited standards provides the incentive and warrant to help to drive continuous improvement in the quality of services. *Standards for Better Health (2006)* demand a rigorous approach to assessment and accreditation of providers of National Health Service (NHS) services. Lord Darzi's *High Quality Care for All: NHS Next Stage Review (2008)* confirms Government support for provider accreditation schemes in the NHS.

This guidance was developed in accordance with the methods outlined in the NICE Service Guidelines for producing accredited standards. The methodology for core service standards have taken into consideration existing NICE clinical guideline. Key factors identified in our evidence review which underpin the service provision of an MMS service are as follows:

- The National Cancer Peer Review Programme[1] either explicitly or by implication, effectively specifies six levels of care, differing in the degree of specialisation and service consolidation needed. These requirements are incorporated into the Network referral guidelines and Network infrastructure for Skin Cancer, set out in the Skin Cancer measures[1];
- Mohs Micrographic Surgery (MMS) is designated under Level 5 Care and must be carried out by core members of the hospitals specialist skin cancer multidisciplinary team (SSMDT);
- The Cancer Alliance Director is responsible for naming and authorising those designated MMS hospital practitioners for the network;
- MMS is a specialised service commissioned and funded by NHS England as set out by Regulation in the Manual. The specialised service specifications for skin cancer clearly define what NHS England expects to be in place for providers to offer evidence-based, safe and effective services[2];
- Trusts are advised to log details about those patients on a local registry when specialist diagnosis (ICD10) and treatments (OPCS) such as MMS are provided. Patients can be removed once specialist management is no longer required so this can be used as a reference point for commissioning data flows[3] and payment.

[1] National Peer Review Programme Manual for Cancer Services: Skin Measures Version 2.1 (2014)

[2] NHS England: A.12 Specialised Dermatology – Skin Cancer specification http://www.england.nhs.uk/wp-content/uploads/2013/06/a12-cancer-skin-adult.pdf

[3] Commissioning Board (2012): Identification rules for prescribed specialised services http://www.england.nhs.uk/wp-content/uploads/2012/11/pss-ir.pdf

In May 2014 the British Association of Dermatologists (BAD) invited a range of professionals and patient representatives to form a multidisciplinary Working Party Group (WPG). The British Society of Dermatological Surgery (BSDS) President-Elect was nominated as Chair of the WPG.

The remit of this WPG is to provide a multi-professional consensus for measurable standards for MMS service provision in the UK. The members were selected from around the UK and from a variety of units for their expertise in MMS and skin cancer as well as from a range of specialties that are important for supporting a MMS service.

Statement of Our Service Standards:

1. Written service standards covering patient referral, information, consent, treatment and discharge.

2. Mohs Micrographic Surgery (MMS) is designated under Level 5 Care and must be carried out by core members of the hospital's specialist skin cancer multidisciplinary team (SSMDT).

3. All MMS Surgeons will have undergone appropriate specialist training in Mohs surgery and will maintain an up-to-date portfolio of continuing professional development. A Mohs surgeon is considered proficient in the resection, processing, mapping and subsequent histologic analysis of skin cancers as well as the repair of the subsequent defects. However, it is recognised that a Mohs surgeon may require additional dermatopathological and/ or reconstructive support.

4. Treatment options and outcomes will be safe and effective for patients. We will monitor, update and validate our service standards to ensure these conform to best outcomes of practice.

5. MMS equipment will be well maintained and routinely checked for reliability, safety and compliance with regulatory standards.

6. The MMS unit will provide a safe and patient-centred environment, with responsive clinical monitoring and feedback.

In order to achieve these core outcomes each Service Standard has set criteria which will need to be demonstrated through self-assessment and audit. This is expected to be a dynamic process which allows service improvement areas to be identified by departments and prioritised within their health organisation.

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Aims, Purpose and Scope

Aims

The core aims of our national MMS service standards are:

- To agree and set acceptable standards for MMS which ensure safe, appropriate and consistent services are provided to skin cancer patients;
- To quality assure MMS practice;
- To quality assure MMS service provision.

Purpose

These multidisciplinary service guidelines for MMS are designed to provide a set of required service standards which harmonise with existing NICE guidelines for skin cancer and the Quality Surveillance Team (QST) (formerly National Peer Review Programme and Skin Measures 2014). This document forms the basis of a quality assurance programme for MMS services and identifies the standards which support the delivery of care to patients receiving MMS.

All service standards areas are supported by clinical governance frameworks within secondary and tertiary care health organisations.

Scope

It is important for MMS service standards to reflect the issues which determine the experience of the person undergoing skin cancer treatment. For this reason, the standards follow the patient pathway and attempt to capture the multidisciplinary aspects of the way the MMS services should be delivered. As far as possible, standards are written from the perspective of the individual experiencing MMS treatment and the need for patient safety.

We recognise that services are under increased pressure to demonstrate that they comply with national policies and guidelines. For this reason, our standards incorporate requirements and recommendations already set out nationally for UK services and are aligned with:

- NICE guidance – IOG 2006 and update 2010 – Wales, England, Northern Ireland and SIGN adapted by Scotland;
- The Quality Surveillance Team (QST) (formerly National Cancer Peer Review Programme and Skin Measures 2014);
- Cancer Alliance and formerly Clinical Strategic Networks (Cancer) Pathology and Clinical Management Guidelines;

- NHS England Specialised Services Skin Cancer Specification;
- NHS Improvement Specialised Services PbR tariffs for Mohs.

It is important that the standards aim to explain the service infrastructure required for delivering an effective, safe and high-quality MMS service. Where a service standard is affected by an existing Quality Surveillance peer review measure, this will be reflected in the audit outcomes. This should support the Quality Surveillance peer review process for MMS.

Introduction

The following standards include the rationale and demonstrable essential criteria which are applied within a NICE accredited service standards framework.

These standards clearly define the minimum expectations for achieving a safe, effective and high-quality MMS service. Self-assessment and audit outcomes are used by MMS services to assess their performance against the standards. Clinicians who carry out MMS are also bound by the standards set by their respective professional bodies in relation to practice and revalidation.

Definitions

Standard

A standard is something considered by an authority or by general consensus as a basis of comparison in measuring or judging adequacy or quality. These standards have been developed by a multi-professional group set up by the BAD to carry out this work.

The criteria defined under each standard are something which services must adhere to as an overriding duty of principle in order to meet the accredited standard. They provide the basis for evaluating the overarching quality of service and will evolve over time.

Evidence/Minimum requirements

The evidence requirements are intended to be well-defined and easy to understand. They must be met to satisfy each accredited standard. Many of the evidence requirements relate to national policy and guidelines.

Examples of suitable evidence

Examples of suitable evidence are provided for each standard and should be collected to demonstrate these requirements have been met. The defined evidence in the next section illustrates the types of information required to demonstrate compliance with a standard. This is not intended to be either prescriptive or exhaustive. Service providers may provide what they consider the most convincing evidence available for their achievement of each standard, whether or not it appears among the examples.

Self-Assessment

Self-Assessment against these accredited standards will be a voluntary and cyclical process. This process provides independent self-validation that a service has demonstrated competence measured against the standards and is considered to be fit for purpose. It drives continuous improvement by allowing services to identify areas for improvement and take the necessary remedial action(s).

Who is this guidance for?

These service standards are integral to providing safe and effective care for patients, measuring quality outcomes and effectively managing service performance and governance.

They help to:

- Ensure that new and existing services are set up in a way that will ensure patient safety and optimal treatment;
- Clarify expectations for patients, clinicians, management, commissioners and NHS employees;
- Drive service improvement and development;
- Contribute to better clinical monitoring and quality outcomes.

Service standards are developed primarily for all commissioners of NHS services and service providers (NHS and private practice). They only address those clinical interventions that are likely to have implications for the configuration of services such as skin cancer.

They also reinforce governance and accountability by making service provision transparent and increase patient confidence by demonstrating commitment to service excellence. This will also ensure commissioners of NHS services procure services from appropriately qualified providers.

These standards and required suitable evidence are intended to apply to all MMS services provided in the UK.

The standards are to be reviewed on a yearly basis to reflect any changes to NICE Guidelines, Quality Surveillance Peer Review and NHS England Cancer Outcome and performance requirements.

What approach have we taken to develop this guidance?

This guidance was developed in accordance with the methods outlined in the NICE Accredited Service Guidelines for achieving their kite mark. The methodology for developing service standards is underpinned and informed by an evidence review which includes The National Cancer Peer Review Programme and Skin Measures 2014. In achieving our objective for UK wide service standards for MMS this is an important and critical factor to consider, in order to avoid destabilisation of established service frameworks for patients.

Each service standard is supported by the available evidence and expert clinical judgment of the WPG. The MMS service standards have been piloted on a number of nominated SSMDT hospital sites using a self-assessment and audit process. Evidence and feedback gathered as

part of this exercise was submitted for review by the WPG. All decisions in the development of this guidance have been made by the WPG through a process of informal-consensus and agreement.

A formal consultation period occurred in 2019 where all SSMDT MMS service providers and reciprocal LSMDT services were invited to comment on the MMS service standards. Comments were collected using a standard proforma. These were reviewed at the end of the consultation period by the WPG and necessary changes made to the service standard before dual publication on the BAD website and NICE evidence database.

The Standards Framework

MMS is primarily recommended for the management of complex skin cancers and where the confirmation of complete clearance is paramount prior to reconstruction: where complex is defined as high-risk pathology within a high-risk anatomical site.

High-risk non-melanoma skin cancers (NMSCs) include:

- Recurrent and incompletely excised tumours following previous treatment including prior radiotherapy;
- When the cancer is large (often more than 2cm);
- If the edges of the cancer are poorly defined (the clinician should aim to visualise with good illumination and magnification);
- Specific histological features associated with local recurrence e.g. micronodular, morphoeic/infiltrative, perineural, perivascular invasion;
- Cancers in immunosuppressed patients.

High-risk sites include those where preservation of healthy tissue is important for maintenance of function and physical appearance:

- Cancers in facial anatomical sites (H-Zone) e.g. eyelids, medial canthus, nasal tip and ala, preauricular area, ears, lips where preserving healthy tissue is critical to maintaining a person's skin function and physical appearance;
- Reconstruction involving the eyelid margins and immediate surrounding area is normally best undertaken by/with a recognised oculoplastic surgeon, due to the sensitive nature of the periocular region and the risk of visual loss. Where this is not possible, surgery should be undertaken in close liaison with an ophthalmologist to safeguard ocular integrity.
- Thumb and fingers;
- Genitalia.

For other cases with either high risk pathology OR high-risk site then Mohs surgery would be considered alongside alternative treatments including standard surgery or radiotherapy.

The Self-Assessment and Audit Process

There are examples of good practice already in MMS services across the UK. However, delivering a service which meets all 'essential criteria' defined under each standard requires a long-term programme of change. Service providers will require additional support and tools for evaluating their performance and areas for improvement.

Therefore, each service standard's 'essential criteria' is supported by a range of documentary evidence and auditable outcomes. The main source of evidence for auditing essential criteria is obtained from patient case notes (paper based or electronically). As a minimum, 20 consecutive cases should be selected for this purpose along with the collation of core evidence for each standard. Some of the activities to be undertaken by SSMDTs will include:

- Activity data review on referral to treatment start times;
- Staff and patient/carer and unit/ manager questionnaires;
- A service user feedback;
- A review of case notes;
- An audit of treatment, with relevant documentation of equipment and facilities.

Self-Audit and Reporting

The data and evidence collected during self-assessment against the MMS service standards should be used to complete the MMS Service Self Audit Form. The audit outcomes are contained within each standard and outline the level required to meet essential criteria. The following flag status system is used to identify each essential criteria and areas of most risk and should be applied to the self- audit outcomes report.

For Example:

	Essential Criteria	Comments	Status
			>95% Green Flag 70-95% Yellow Flag <70% Red Flag

or

	Essential Criteria	Comments	Status
			Yes - Green Flag No - Red Flag

Red Flag [Action Required]: failure to meet these standards places undue clinical risk on patients, breaches their rights or dignity and/or may result in remedial action;

Yellow Flag [Monitoring Required]: service standards that a service would be expected to meet;

Green Flag [No Action Required]: meets service standard essential criteria

Given the variation to current service provision, providers implementing MMS service standards have a grace period (12 months) to identify shortfalls in their service provision. This enables the SSMDT to review their local practices against the accredited MMS service standards and, if necessary, implement the changes required. A summary of the results from the self-assessment and audit would form the basis of a business case for any identified areas of service improvement. The NICE accredited Mohs standards should be referenced in all service specifications for specialised Skin Cancer Services and inform performance measures in the NHS Standard Service contract. The self-assessment process and audit outcomes will provide evidence of performance against these required standards for Peer Review teams, Trust Boards, Healthwatch, local council service users and commissioners.

Service Standards

STANDARD 1: Referral and Patient Assessment

Standard Statement 1A – Referral

Rationale

Any GP or medical consultant who identifies a skin cancer patient with specific needs such as treatment using MMS can refer the case directly to the SSMDT. A core member of a local skin cancer multidisciplinary team (LSMDT) may also choose to refer a patient case straight to the SSMDT or the Mohs surgeon associated with the team without prior discussion by the LSMDT, and the case being reviewed locally in retrospect after being passed on[4].

It should be understood and expected that any case referred by an LSMDT to a designated SSMDT providing Mohs Micrographic Surgery (MMS) may be taken on for treatment by the SSMDT without further permission from the referrers.

Essential Criteria

1A.1	The regional Cancer Alliance[5] should name those hospital practitioners which the network authorises as the only practitioners to carry out the procedure known as MMS, for the network. This includes the procedure known as 'Slow or paraffin section MMS[6]. Paraffin section MMS employs the same tissue mapping principles and horizontal sections as standard frozen MMS but is used when rapid paraffin sections are deemed essential for higher tissue quality.
1A.2	Agreed referral arrangements for MMS services between the LSMDTs and SSMDTs across the Network Group for a variety of cutaneous pathology.
1A.3	A request for advice and guidance (A&G) should come before a referral and therefore would not initiate a referral-to-treatment (RTT) clock start. If the subsequent advice is to refer the patient to the Mohs surgeons, then the RTT clock would start when the GP and patient agree and initiate a formal referral (in line with RTT Guidance).
1A.4	When the responsibility of care for a patient is formally from the LSMDT to the SSMDT Mohs surgeon the inter-provider transfers (IPTs) form should be recorded. The date that a referral request is received by the provider will mark the point at which the IPT is made. Where a request is made just for a diagnostic or MDT discussion only and the responsibility for care is not formally transferred this would not be recorded as an IPT in the Cancer Waiting Times system.
1A.5	Agreed location of the MMS service for the SSMDT population with regional specialised services commissioner.

[4] Skin cancer measure 2014 - last paragraph: page 21

[5] Regional Cancer Alliances should have a clinical network group who agree and produce network wide pathways and guidelines for the treatment of skin cancer to improve the quality of care and outcomes.

[6] National Cancer Peer Review Programme and Skin Measures 2014 – Mohs Measure (11-1C-111j

Examples of Suitable Evidence			
• SSMDT Network clinical guidelines for basal cell carcinomas (BCCs) and Squamous Cell Carcinomas (SCCs).			
• GP and LSMDT referral management guidelines for accessing MMS services.			
Audit Outcomes - what will be audited for each Standard			
	Audit of referrals using an agreed minimum dataset (for example - http://www.bsds.org.uk/resources/bsds-policy-documents). Examples can include incompletely excised or recurrent tumours referred for MMS.	>95% Green 70-95% Yellow <70% Red	
	Referred Mohs cases have clear referral documentation.	>95% Green 70-95% Yellow <70% Red	
Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		**YES**	**NO**
Q1.	Is the Mohs surgeon(s) and service recognised by the regional Cancer Alliance (or superseding body) and/or NHS England Regional Specialised Services Commissioner? (Standard 1A)		
Q2.	Was there clear documentation as to how the patient was referred for MMS? (Standard 1A)		
Q3.	Is all MMS activity performed by a Mohs surgeon who is a core member of the SSMDT?		

Standard Statement 1B – Patient Assessment	
Rationale Patients considered for MMS can be referred with histology to the SSMDT, by their GP or LSMDT for review by the Mohs surgeon. A pre-operative assessment should be given to carefully assess the medical condition, evaluate the patient's overall health status, determine risk factors against the procedure, educate the patient, and discuss the procedure in detail. In return, the patient should gain a realistic understanding of the proposed surgery including all the reconstructive options, consider alternative treatments, and realise the possible complications during the perioperative period.	
Essential Criteria	
1B.1	A locally agreed minimum dataset of information about complex skin tumour patients to be considered for MMS (should be collated and summarised prior to MDT meetings wherever possible) – which should include diagnostic and relevant clinical information (for example histology and co-morbidities).

1B.2	Clinical records for Mohs surgery patients should include the preoperative evaluation including performance status and comorbidities, operative consent form, peri-operative checklist as per hospital guidelines and Mohs map.
1B.3	Photograph of lesion site where possible is recorded in the patient's clinical records.
1B.4	Use of validated assessment tool for patients with emotional, social function, and appearance issues where deemed necessary.
1B.5	All patients should have access to a Skin Cancer Nurse Specialist (CNS).
1B.6	Patients should undergo a preoperative assessment by the Mohs surgeon and the reconstructive surgeon when joint surgical care is required.

Examples of Suitable Evidence
• MMS activity data for 6 months and MDT case lists with outcomes.
• Agreed minimum dataset used to record information on Mohs patients.
• Completed validated assessment tool for 20 patients e.g. patient and observer scar assessment scale (POSAS).

Audit Outcomes - what will be audited for each Standard		Status
	Mohs patients are listed on SSMDT Case lists.	>95% Green 70-95% Yellow <70% Red
	Percentage outcomes of patients with complex skin cancers referred for MMS and percentage outcomes subsequently treated by MMS are stated annually.	>95% Green 70-95% Yellow <70% Red
	An audit of 50 consecutive MMS patients should be undertaken every three years using agreed minimum dataset of information.	>95% Green 70-95% Yellow <70% Red

Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		YES	NO
Q1.	Are all Mohs cases listed for discussion by the SSMDT?		
Q2.	Is there evidence that all newly referred patients have undergone a pre-operative assessment with the Mohs surgeon?		

STANDARD 2: Patient Information and Consent

Standards Statement 2A - Provision of Written Patient Information

Rationale

The MDT should provide written /electronic material for patients and carers which includes:

- Information specific to the Mohs surgical services and Surgeons provided by the SSMDT for its locality;
- Information specific to the group of cancers which can be treated by MMS and other treatment options (including names and functions/roles of the team treating them);
- Information about patient involvement groups and patient self-help groups;
- Information about the services offering psychological, social and spiritual/cultural support, if available; It is recommended that patients are given the opportunity to talk to other patients who have had MMS;
- Information about services available to support the effects of living with cancer and dealing with its emotional effects.

It is recommended that the information and its delivery to patients and carers follow the principles of the NHS Information Prescription.

Essential Criteria

2A.1	All patients should be provided with written patient information leaflets to discuss potential risks and benefits of MMS.
2A.2	Patients assessed by the Mohs surgeon and the reconstructive surgeon should be given information on both stages of surgery and sequelae.

Examples of Suitable Evidence

- Pre- and post-operative information provided to patients in letters and or leaflets.
- Comprehensive information on the MMS service is available on the Trust website and includes links to local skin cancer support group.
- Macmillan or other information resources on skin cancer care.

Audit Outcomes - what will be audited for each Standard

	Written evidence of consent in case note reviews.	>95% Green 70-95% Yellow <70% Red
	Patients have been offered written or electronic patient information material, including about the cancer diagnosis and procedure (as part of consent process).	>95% Green 70-95% Yellow <70% Red

Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases	YES	NO

Q1.	Is there comprehensive information available for patients about the Mohs service on the department website?		
Q2.	Does the MMS service have a standardized pre- and post-operative information sheet to provide to patients?		

Standard Statement 2B - Two (or more) - Stage Patient Consent

Rationale

Patients receiving elective treatment for which written consent is appropriate should be familiar with the contents of their consent form **before** they arrive for the actual procedure *and* should have received a copy of the page documenting the decision-making process. They may be invited to sign the form, confirming that they wish treatment to go ahead, at any appropriate point before the procedure: in out-patients, at a pre-admission clinic, or when they arrive for treatment. If a form is signed before patients arrive for treatment, a member of the healthcare team **must** check again with the patient at this point whether they have any further concerns and whether their condition has changed.

Essential Criteria

2B.1	The patient's medical records or a consent form must be used to record the key elements of any clinical discussion with the patient. This should include the information discussed, any specific requests by the patient, any written, visual or audio information given to the patient, and details of any decisions that were made.
2B.2	The GMC guidance states that the task of seeking consent may be delegated to another person, as long as they are suitably trained and qualified. In particular, they must have sufficient knowledge of the proposed investigation or treatment, and understand the risks involved, in order to be able to provide any information the patient may require.
2B.3	Organisations must create standardised documentation for patients undergoing invasive procedures that promotes the sharing of patient information between individuals and teams at points of handover and forms a record for future reference.

Examples of Suitable Evidence

- Pre and post-operative patient information sheet specific to MMS.
- MMS consent checklist covering the details explained to the patient including the procedure, pain management during surgery, risks and recovery.

Local Safety Standards for Invasive Procedures (LocSSIPs) which includes policy for sharing of patient information between individuals and teams at points of handover.

Audit Outcomes - what will be audited for each Standard			
	Consent forms and checklists contained in the patient record by all clinicians involved in the MMS.	>95% Green 70-95% Yellow <70% Red	
	Adherence to Local Safety Standards for Invasive Procedures (LocSSIPs) and policy for sharing patient information between teams at handover.	>95% Green 70-95% Yellow <70% Red	
Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		**YES**	**NO**
Q1.	Is there a signed consent form contained in all the MMS patient records form?		
Q2.	Is there a record contained within each MMS patient record containing handover notes for care?		
Q3.	Does the department have an up to date LocSSIP (within the last 12 months) which includes MMS procedures?		

Standard Statement 2C - Patient Experience Exercise

Rationale

Each skin cancer MDT should have undertaken or be undertaking an exercise during the previous two years prior to review or completed self-assessment to obtain feedback on patients' experience of the MMS services offered. The exercise should have been presented and discussed at an MDT meeting and the team should have implemented relevant points from the previous exercise.

Essential Criteria

2C.1	The exercise should at least ascertain whether patients were offered: • Opportunity to see a key worker, who may be the MDT CNS; • The MDTs information for patients and carers (written or otherwise); • The opportunity of a permanent record or summary of a consultation at which their treatment options were discussed; Functional and cosmetic outcome assessment at least 3 months post-surgery (part of MMS minimum dataset).

Examples of Suitable Evidence

- A survey, questionnaire, focus group or other method with prospectively captured data when possible (e.g. 3-month outcomes).
- MMS Minimum data set report.

• MDTs information for patients and carers (written).			
Audit Outcomes - what will be audited for each Standard			
	Patients are offered an outcome assessment at least 3 months post-surgery.	>95% Green 70-95% Yellow <70% Red	
	Patients offered permanent record or summary of a consultation at which their treatment options were discussed.	>95% Green 70-95% Yellow <70% Red	
	Patient access to key worker.	>95% Green 70-95% Yellow <70% Red	
	Two yearly audit reports with outcomes actioned.	>95% Green 70-95% Yellow <70% Red	
Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		**YES**	**NO**
Q1.	Do all the MMS patient records contain written evidence of being offered a 3-month post-surgery assessment?		
Q2.	Has the MMS service produced an audit with actioned outcomes within the last two years?		

STANDARD 3: Staff Training, Education and Competency

Standard Statement 3A - Qualified Professional Staff

Rationale

All Mohs surgeons should have obtained training in Mohs surgery via a competency-based fellowship programme (which should fulfil the standards outlined in Appendix 2*). Professional development must be ongoing and include internal and external multidisciplinary education.

MMS services require staff to have specialist training, knowledge and clinical skills appropriate to the role they are undertaking to support the Mohs surgeon. Staff must be assessed as being competent and safe in order to provide treatments that maximise benefit and minimise the potentially serious adverse effects of therapies.

Nursing staff should be qualified and registered with the Nursing and Midwifery Council (NMC), and Health Care Assistants (HCAs) should be trained, supported and recognised by appropriate bodies.

Essential Criteria

3A.1	Mohs surgeon should regularly undertake a caseload that is sufficient to maintain and develop their Mohs re-sectional surgery skills, Mohs pathology interpretation and reconstructive options, whilst running a high-quality Mohs laboratory to support this.
3A.2	An individual Mohs surgeon will undertake a minimum of 2 PAs (programmed activities) of MMS or pro-rata if part time. Irrespective of PA number, each named practitioner should have performed a total of at least 50 complete Mohs surgical procedures per year averaged over the last two complete calendar years prior to the networks peer review visit or completed self-assessment.
3A.3	At least one of the laboratory staff should be a state registered (Health and Care Professions Council (HCPC)) biomedical scientist or should be actively working towards registration within 3-5 years. Mohs laboratory biomedical scientists will be either dedicated or be one of a small team of biomedical scientists who regularly cut Mohs sections and complete a sufficient number in order to maintain a high technical expertise in preparing Mohs sections.

Examples of Suitable Evidence

- The Mohs surgeon's job plan.
- Record of attendance at relevant conferences and courses to ensure CPD.
- Evidence of training which will include certification by the HCPC and might include the Institute of Biomedical Sciences' (IBMS) diploma of expert practice in Mohs histological techniques.
- Record of cases treated.

Audit Outcomes - what will be audited for each Standard			
	Yearly review of job plans within an MMS Unit.	Yes - Green No - Red	
	For each individual Mohs surgeon an audit from the minimum dataset including number of cases per year, case mix of patients, number of stages of MMS surgery, and outcomes post-surgery.	>95% Green 70-95% Yellow <70% Red	
Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		**YES**	**NO**
	Does the Mohs unit hold a yearly record of all staff professional development and training?		
	Do all Mohs staff have a job plan which reflect their activities within the unit?		
	Has there been an audit of the Mohs surgeon's minimum data set within the last 12 months?		

STANDARD 4: Clinical Management & Monitoring

Standard Statement 4A – Pathology and Clinical Results

Rationale

Mohs surgeons should understand the process involved in producing high quality frozen section Mohs specimens and will read their own slides and mark the Mohs map. They should have access to second opinions on interpretations of slides with an MMS trained colleague and/or dermatopathologists when necessary. They should and be able to supervise and direct the technicians within the Mohs laboratory.

An agreed minimum dataset for Mohs (e.g. https://www.bsds.org.uk/static/frontend/pdfs/Mohs%20Data%20Capture%20Sheet%202013.doc) will record patient demographics, date of Mohs procedure, tumour diagnosis, diagnostic biopsy pre-Mohs where available, indications for Mohs procedure, anatomical site, number of stages and number of blocks to clearance, stain used for sections, tumour and defect sizes, method of reconstruction.

Essential Criteria

4A.1	MMS notes should be available to be submitted with microscope slides for third party audit / evaluation. A Mohs map signed by the Mohs surgeon should be part of the patient record.
4A.2	A diagnostic specimen of the tumour should be analysed pre-operatively by a histopathologist or the debulk sent during surgery. If there are any discrepancies, residual tissue from the MMS blocks should be fixed for further evaluation as deemed necessary.
4A.3	The MMS laboratory should aim to conform to medical laboratory ISO 15189 standards, if not already achieved. Participation in registered Mohs laboratory technical and histopathology interpretive external quality assurance (EQA) schemes is recommended. A national histopathology EQA scheme for Mohs sections is under development and once established all Mohs surgeons would be expected to be compliant.
4A.4	SSMDT should agree network-wide pathology guidelines for the diagnosis of skin cancer which include Laboratory and histopathology/histochemical investigations and their specific indications.

Examples of Suitable Evidence

- SSMDT Agreed Pathology Guidelines for Diagnosis and Assessment.
- Audit of the Mohs surgeon interpreted slides.

• MMS units will be expected to complete and submit the nationally agreed dataset to a national repository for all cases (in development by the BAD and BSDS).		
Audit Outcomes - what will be audited for each Standard		
	Audit of second cold reading of Mohs slides. Assessment of a random consecutive sample of Mohs cases with a minimum of 10% per annum or 25 (whichever is greater) to be agreed with local dermatopathologist or Mohs surgeon not involved with the cases. At least 95% concordance is expected.	>95% Green 70-95% Yellow <70% Red
	All cases should have diagnostic pathology available either pre-operatively or as residual debulk tissue sent during surgery.	>95% Green 70-95% Yellow <70% Red
	Departmental annual audit unit of minimum dataset parameters.	>95% Green 70-95% Yellow <70% Red

Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		YES	NO
	Has an audit of the reading of the Mohs slides been undertaken in the last 12 months?		
	Is there evidence of diagnostic pathology for all cases reviewed?		

Standard Statement 4B – Recording Mohs Surgical Activity

Rationale

As MMS usually requires multiple procedures the recording of activity undertaken on a patient at the time of their treatment is essential to provide an accurate record of their care. Failure to record a diagnosis, co-morbidities and the number of procedures by the Mohs surgeon in England affects the payment the department receives for this specialised service from NHS England. However, all Mohs procedures in the UK should be recorded using the International classification and procedure codes. An example of a Mohs coding form is provided in Appendix 3 to assist all departments in the UK.

Essential Criteria		Status
4B.1	The following clinical activities must be recorded for all patient undergoing MMS (regardless of where the surgery takes place) for payment by NHS England. **Non-face-to-face Mohs consultations** Non-face-to-face consultations with GPs and other consultant dermatologists/surgeons should take place via a designated Referral Assessment Service (RAS) for skin cancer/Mohs. • WF01B First Attendance	

	New Consultation with Mohs Surgeon (pre-assessment with histology provided by referrer or without histology) • WF01B First Attendance - Single Professional plus where required • Biopsy of lesion of skin of head or neck – S151 plus body specific site Z code • Biopsy of lesion of skin NEC - S152 plus body specific site Z code Follow Up Surgery Appointment • Primary Diagnosis (ICD10) code along with any existing co-morbidities which affect the patient's treatment • Mohs excision of skin of head or neck - S051 S151 along with the site and side code of the lesion, surgical closure, suture, and dressing • Mohs excision of lesion of skin -S052 S151 along with the site and side code of the lesion, surgical closure, suture, and dressing Or New Consultation (pre-assessment with histology) – Multidisciplinary (Mohs surgeon and reconstructive surgeon) • WF02B First Attendance - Multi Professional Patients case with histology is listed on SSMDT case list for review/ discussion at next available meeting. Patient is booked for day case surgery as treatment is recorded as described under 'Follow Up Surgery Appointment'. A Mohs coding form is provided in Appendix 3 to assist MMS units and their clinical staff with capturing the required information for NHS England. Follow Up Appointments - post surgery • WF10C (non-admitted) non-face-to-face follow-up (consultant-led) when appropriate and agreed with the patient • WF01A Follow Up Attendance(s) - Single Professional Any additional procedures undertaken in the management of the patient post op should be recorded as outpatient activity and is not billed to NHS England.
4B.2	Agreed protocols in place for recording the Mohs procedure with the Hospitals coding team.
4B.3	Regular review Mohs activity data (at least monthly) by the MMS unit to ensure accuracy of clinical information before charges are made to NHS England.
Examples of Suitable Evidence	
• Completed Mohs clinical coding forms for all patient undergoing MMS in patient records.	

• Patient case notes with procedures recorded.			
Audit Outcomes - what will be audited for each Standard			
	Accuracy of recorded procedures and co-morbidities of patients undergoing MMS.	>95% Green 70-95% Yellow <70% Red	
	Mohs coding form accurately completed to record patient surgery.	>95% Green 70-95% Yellow <70% Red	
Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		YES	NO
Q1.	Does the department have agreed protocols in place for the recording of its MMS Surgery?		
Q2.	Does the MMS unit regularly review its MMS activity to ensure accuracy in the information recorded?		

STANDARD 5: Equipment and Facilities

Standard Statement 5A - Safety and Compliance

Rationale

The facility for MMS will usually consist of two or more procedure rooms with all the necessary equipment for Mohs cases of all complexities and including access to appropriate surgical beds and recovery areas, electrosurgical equipment and surgical instruments for peri-ocular, aural and fingertip tumours.

A Mohs laboratory is a dedicated and co-located room in the same site, equipped with several critical pieces of equipment including a high-quality microscope, a low-temperature cryostat microtome, cell stainers using volatile solvents, heat plates, and adequate ventilation and fume extraction facilities which are compliant with Control of Substances Hazardous to Health (COSHH) requirements. Liquid nitrogen is often used to freeze tissue blocks. There should be monitoring of cryostat temperature with relevant documentation.

Essential Criteria

5A.1	The Mohs laboratory will have an SOP in the event of equipment failure which ideally would enable access to a backup cryostat on site (in case of unit failure), along with staining facilities (manual and / or automated) for Haematoxylin & Eosin and / or Toluidine Blue staining of Mohs sections.
5A.2	All drugs and other chemicals used in the MMS unit must have a COSHH risk assessment, be stored in a secure place and monitored to Health Safety Executive (HSE) standards.
5A.3	The protection of the MMS Unit staff is necessary to comply with safety standards. Protective clothing including scrubs, gloves, eye protection and cryo-protective clothing must be used where required. All entrances to treatment areas must have appropriate warning signs and hazard labels.
5A.4	Designated recovery areas for MMS patients should be provided. Patients should have access to a bed or reclining chair with appropriate privacy between stages if required.
5A.5	Resuscitation equipment must be available, and staff must be trained in its use.

Examples of Suitable Evidence

- Formal written risk assessments of the Mohs unit carried out annually.
- Current COSSH assessment of risks from exposure to liquid nitrogen and cell staining solvents, where used.
- Maintenance logs and daily temperature logs should be filled out and kept up to date.

Audit Outcomes - what will be audited for each Standard

	Audit of key pieces of equipment to comply with agreed local standards and governance (see section 4A.3).	Yes - Green No - Red
	Up to date COSSH Risk Assessment for the storage of drugs and equipment used within the MMS service.	Yes - Green No - Red
	The Mohs laboratory is a dedicated and ideally co-located room on the same site and there is a separate designated recovery area which provides bed or reclining chair and appropriate privacy.	Yes - Green No - Red

Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		YES	NO
Q1.	Has the MMS unit undertaken an audit and COSSH Risk Assessment of key pieces of equipment and chemicals used in the department within the last 12 months?		
Q2.	Does the MMS unit have the required rooms for carrying out surgery, reading histopathology slides and designated waiting area for patients?		

STANDARD 6: Clinical Governance and Audit

Standard Statement 6A – Clinical Governance and Audit Meetings

Rationale

MMS services should operate within the departmental clinical governance process. It is recommended as a minimum a clinical governance framework for an MMS service should include a named MMS lead clinician. The role of the lead clinician is to take clinical responsibility for ensuring that the service is safe, effective and complies with:

- National service delivery standards;
- Treatment-specific guidelines;
- Disease specific guidelines;
- National / Local Safety Standards for Invasive Procedures (LocSSIPs).

The MMS service is delivered by a multi-professional team. Members of the team and their roles in contributing to the service should be recorded. Team members would typically include the following: Mohs surgeons in the unit; lead laboratory technician; Mohs surgical nurse; +/- trainee grade for any of the above.

Essential Criteria

6A.1	The MMS team should have at least 3 meetings per year. The broad aim of these meetings is to ensure that the service is focused on the need to provide timely, safe and effective MMS services to local patients.
6A.2	The agenda for these regular MMS clinical governance meetings should include the following elements: • Review of MMS activity since the previous meeting (summary of treatment numbers for each clinician). • Review of MMS waiting list data (if a waiting list exists) to assess demands on the service and issues for service delivery. • Review of adverse events. All adverse events should be discussed by the team. Where patient safety is an issue, the team need to consider the cause of the adverse event, and measures to be taken if necessary, to avoid a repeat in the future. • Discussion of difficult or instructive cases. As with any clinical therapy service, there may be some cases that are atypical or unusual. Discussion of these cases is often instructive for team members and may improve patient outcomes.
6A.3	Standardised methods for recording incidents on DATIX or equivalent incident reporting systems.
6A.4	A record should be kept of the performance of the key safety checks in the patient pathway by the procedure team, or individual on the team's behalf.

Examples of Suitable Evidence
• Minutes of Clinical Governance Meetings discussing outcome reports of adverse events and lessons learned.
• Case based discussions of challenging MMS patients and outcomes.
• Waiting list cases and reprioritisation of high-risk cases.
• Local Safety Standards for Invasive Procedures (LocSSIPs) created by multi-professional clinical teams and their patients.
• Record of DATIX or other Incident reporting system data for serious incidents and never events.

Audit Outcomes - what will be audited for each Standard		
	Record of at least 3 team meetings per year.	>95% Green 70-95% Yellow <70% Red
	Summary of Mohs surgery governance meetings reported to the SSMDT.	>95% Green 70-95% Yellow <70% Red
	Audit of recorded WHO Surgical Safety Checklist and / or agreed Local Safety Standards for Invasive Procedures checklists in patient cases.	>95% Green 70-95% Yellow <70% Red

Self-Assessment and Audit Questionnaire - Review of 50 Patient Cases		YES	NO
Q1.	Has the MMS unit had any reported adverse events in the last 12 months?		
Q2.	Does the MMS unit have a process in place to identify high-risk patients on waiting list to reprioritize their care?		
Q3.	Does the MMS unit have regular team meetings with clinical and managers to discuss the service?		

Appendix 1: Prevalence and Incidence

An evidence search was made using the following electronic databases in May 2014: Cochrane Library; PubMed; British Medical Journal (BMJ); British Journal of Dermatology (BJD); Royal Society of Medicine (RSM) Library. Where NICE Guidance exists for the clinical indication or skin disease area, the citations contained within inform on the prevalence and incidence evidence and services, where relevant.

Types of high-risk pathology tumours which may be treatable by MMS

NMSCs constitute a substantial burden to the national health services across the UK because of the large number of cases diagnosed each year; however, NMSC incidence figures are under-estimates because the recording of NMSC is known to be incomplete.[8]

Many cancer registries record only the first NMSC of each histological type (e.g. BCC or squamous cell carcinoma (SCC)) per person, and information on small NMSCs treated in primary care or the private sector may never reach the registries.[9] An estimated 30-50%[10,11] of BCC and around 30%[12] of SCC goes unrecorded, though this may vary by registry.[13]

Non-melanoma skin cancers (NMSCs) are extremely common, but relatively few deaths are caused by them. In 2011, there were 102,628 cases of NMSC registered in the UK: 57,800 (56%) in men and 44,828 (44%) in women, and 585 deaths.[14]

There are two main subtypes of non-melanoma skin cancer: BCC and SCC. There are also a number of rarer skin cancers which are often treated with MMS, including dermatofibrosarcoma protuberans (DFSP), lentigo maligna, sebaceous carcinoma, atypical fibroxanthoma (AFX) and microcystic adnexal carcinoma (MAC).

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8 National Cancer Intelligence Network (NCIN) Data Briefing. The Importance of Skin Cancer Registration. London: NCIN; 2010.

9 National Cancer Intelligence Network (NCIN). Rare Skin Cancer in England. London: NCIN; 2011.

10 Brewster DH, Bhatti LA, Inglis JH, et al. Recent trends in incidence of non-melanoma skin cancer in the East of Scotland, 1992-2003(link is external). Brit J Dermatol 2007;156:1295-1300.

11 de Vries E, Micallef R, Brewster DH, et al. Population-based estimates of the occurrence of multiple vs. first primary basal cell carcinomas in 4 European regions (link is external). Arch Dermatol 2012;148(3):347-354.

12 Poirier V, Ives A, Hounsome L, et al. The Role of the South West Public Health Observatory as the Lead Cancer Registry for Skin Cancer (link is external). Poster presented at The British Association of Dermatologists Non-Melanoma Skin Cancer Update Meeting, London, February 2013.

13 South West Public Health Observatory. Non-Melanoma Skin Cancer: Estimates of cases (link is external). Bristol: South West Public Health Observatory; 2010.

14 ONS. Mortality Statistics: Deaths Registered in England and Wales (Series DR), 2011

BCC

The majority of NMSCs are BCCs, making up 74%.[15] BCCs are the commonest type of cancer in the UK, placing a significant burden on NHS resources.[16]

BCCs rarely metastasise and are unlikely to be fatal, although if untreated the tumours can become destructive and cause disfigurement.[17] The recorded incidence of BCCs increased by around a third (36% in males and 32% in females) between 2000-2002 and 2008-2010 in England, Scotland, Northern Ireland and Ireland combined.[15]

Whilst improved registration may partly explain these increases, some of the increase is probably genuine, reflecting increased UV exposure from the sun or sunbeds.[15] MMS has been shown to achieve excellent long-term cure rates for basal cell carcinoma. MMS should be considered for BCCs with ill-defined margins and / or aggressive histology (e.g. micronodular, morphoeic, infiltrative or perineural involvement) and should be the preferred treatment if associated with a high-risk site.[18,19]

As per the NICE IOG, MMS should also be considered for recurrent and large, high-risk BCCs located at surgically complex regions of the face.

SCC

Cutaneous SCC accounts for around 23% of NMSC[15] and can spread beyond the skin and therefore lead to death.[20] SCC incidence increased by a similar amount to BCC (34% in males and 39% in females) over the same time period.[15] As with BCC, sun exposure is a major risk factor. Systematic reviews of large numbers of studies show that MMS has high cure rates compared to other treatment modalities, and whilst surgery with a predefined excision margin is the treatment of choice for most cutaneous SCCs, MMS should be considered for higher risk tumours in cosmetically sensitive sites.[20]

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15 National Cancer Intelligence Network (NCIN). Non-melanoma skin cancer in England, Scotland, Northern Ireland, and Ireland. London: NCIN; 2013

16 Morris S, Cox B, Bosanquet N (2009) Cost of skin cancer in England. The European Journal of Health Economics 10: 267–73.

17 Miller SJ, Alam M, Andersen J et al. Basal cell and squamous cell skin cancers. J Natl Compr Canc Netw. 2010;8(8):836-6.4.

18 van Loo E, Mosterd K, Krekels GA et al. Surgical excision versus Mohs micrographic surgery for basal cell carcinoma of the face: A randomised clinical trial with 10-year follow-up. Eur J Cancer 2014 Sep 24: S0959- 8049.

19 Madan V, Lear JT, Szeimies RM. Non-melanoma skin cancer. Lancet. 2010;375(9715):673-85

20 Lansbury L, Bath-Hextall F, Perkins W et al. Interventions for non-metastatic squamous cell carcinoma of the skin: systematic review and pooled analysis of observational studies. BMJ 2013 Nov 4; 347: f6153

Lentigo Maligna

Lentigo maligna is an in-situ form of melanoma and about 1 in 10 melanomas (10%) are of this type.[21] Lentigo maligna is most common in elderly people and related to sun exposure. It tends to appear as a pigmented flat patch, however if it progresses and invades beyond the epidermis (upper layer of the skin) as a lentigo maligna melanoma, it may form lumps (nodules).

The exact percentage of cases that progress to an invasive tumour is unknown, and the lifetime risk has been estimated to be around 5%[22]. Once lentigo maligna melanoma develops, its prognostic features are similar to other forms of invasive melanoma. The standard treatment of lentigo maligna is complete surgical excision of the lesions, but this can be challenging in selected cases due to disease extending beyond what is visible to the naked eye (subclinical spread).[22] The option of adjuvant therapies e.g. radiotherapy, imiquimod mean the management of such cases should be considered by the SSMDT.

Dermatofibrosarcoma Protuberans

Dermatofibrosarcoma protuberans is a very rare type of skin cancer with a prevalence of 5-8 per million people. It most commonly affects people in their 20s to 40s with men and women being equally affected.[23]

It tends to develop in the deeper layers of the skin (the dermis) and not infrequently invades fat and muscle. Around 8% occur within the head and neck region.

While this type of skin cancer tends to grow slowly, it may be aggressive. However, DFSP rarely spreads to other parts of the body, which gives DFSP a very high survival rate.

Surgical treatment tends to be wide surgical excision with pre-determined margins or alternatively with MMS.

The general prognosis for DFSP is excellent. MMS has been reported to show benefit as the growth pattern of DFSP may not be concentric and therefore microscopically tracing out tumour roots tends to achieve a higher cure. Randomised controlled trial evidence is not available; however, a systematic review in 2012 concluded 'A weak recommendation is given in favour of MMS or similar surgical techniques with meticulous histologic evaluation of all margins as the first-line therapy for DFSP'.[24] It would seem appropriate to suggest MMS for primary lesions occurring in high-risk sites or recurrent lesions.

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21 Cancer Research http://www.cancerresearchuk.org/cancer-help/type/melanoma/about/types-of-melanoma#lentigo

22 Melanoma in situ: Part I and Part 2. Epidemiology, Screening, and Clinical Features. Higgins HW 2nd, Lee KC, Galan A, Leffell DJ J Am Acad Dermatol. 2015 Aug;73(2):181-203. doi: 10.1016/j.jaad.2015.04.014 / doi: 10.1016/j.jaad.2015.03.057.

23 DFSP- Your Cancer Explained. Birmingham Cancer Network NHS. 2011.

24 Faroozan M, Sei JF, Amini M et al. Efficacy of Mohs micrographic surgery for the treatment of dermatofibrosarcoma protuberans: systematic review. Arch Dermatol Sep 2012; 148: 1055-63.

Sebaceous Carcinoma

Sebaceous carcinoma is a very rare type of skin cancer. Of the 3,392 new cases of rare skin cancers registered from 1999-2008 in England, 713 of these were sebaceous carcinoma.[25] The sebaceous glands are the glands that produce our natural skin oils. The most common site is the upper eyelid and 3 out of 4 of these cancers are diagnosed around the eye with the remainder elsewhere on the body. It is more common in elderly people, but sebaceous carcinoma is sometimes found in younger people who have previously had radiotherapy to the face or with a background of Muir-Torre syndrome.

They are often slow growing but in 1 out of every 5 cases spread to another part of the body.[26] Despite the rarity of these tumours there is some evidence of MMS being an effective treatment option.[27]

Atypical Fibroxanthoma / Pleomorphic Dermal Sarcoma

These are tumours that usually occur in older people on the skin of the head and neck or other areas that have been damaged significantly by sun exposure. AFX occurs equally in men and women. AFXs typically appear as raised, red dome shaped lesions which may be ulcerated. Lesions often grow rapidly, over just a few weeks or months. The term pleomorphic dermal sarcoma is used to describe tumours with similar pathological features but subcutaneous invasion and/or necrosis, lymphovascular or perineural invasion.

Diagnosis is made by clinical examination and biopsy. Literature reviews have suggested that MMS may have a higher cure than wide local excision.[28]

25 Rare Skin Cancer in England: NCIN Data Briefing. NCIN. Nov 2011

26 Cancer Research UK. http://www.cancerresearchuk.org/cancer-help/about-cancer/cancer-questions/what- is-a-sebaceous-gland- (accessed August 2015)
carcinoma.

27 Hou JL, Killian JM, Baum CL et al. Characteristics of sebaceous carcinoma and early outcome of treatment using Mohs micrographic surgery versus wide local excision: an update of the Mayo Clinic experience over the past 2 decades. Dermatol Surg 2014; 40: 241-6.

28 Lorizzo LJ, Brown MD. Atypical Fibroxanthoma: a review of the literature. Dermatol Surg 2011; 37:146-57.

Microcystic Adnexal Carcinoma

Microcystic adnexal carcinoma is a rare skin neoplasm. The Surveillance, Epidemiology, and End Results (SEER) database collected between 1973 and 2004 found an incidence rate of 6.5 per 10 million white individuals.[29] Similar cases might have been previously reported as malignant syringoma. MAC can be clinically and histologically confused with other malignant and benign cutaneous neoplasms, leading to inadequate initial treatment. This neoplasm is locally aggressive and deeply infiltrating, characterised by high morbidity and frequent recurrence. Hence MMS can be beneficial.[30]

[29] Surveillance, Epidemiology, and End Results (SEER) Database Analysis of Microcystic Adnexal Carcinoma (Sclerosing Sweat Duct Carcinoma) of the Skin. JB, Blitzblau RC, Patel SC, Decker RH, Wilson LD. Am J Clin Oncol 2010;33:125-7

[30] Diamantis SA, Marks VJ. Mohs micrographic surgery in the treatment of microcystic adnexal carcinoma. Dermatol Clin 2011; 29: 185-90.

Appendix 2: Expected standards for training in Mohs surgery

As of the 1st January 2020, clinicians wishing to develop expertise in Mohs surgery should undertake fellowship training which will:

1. Be undertaken in a Mohs centre performing at least 500 cases per annum and that treats a range of cutaneous malignancies.

2. Ensure competence in Mohs tissue resection and Mohs histological analysis:

    a. The Mohs fellow in a supervised capacity will have undertaken at least 150 Mohs cases which involve taking the Mohs layers, reading the histology, interpreting the Mohs map and planning further layers.

    b. The Mohs fellow, with oversight from the responsible Mohs trainer, will have been first operator independently performing all stages of the Mohs resection procedure in at least 100 further cases, including taking the Mohs layers, processing specimens, analysing and interpreting the histology slides, marking the map, and making decisions regarding further Mohs layers.

Fellows should be competent to recognise the various subtypes of basal cell carcinoma and squamous cell carcinoma, and conditions which may mimic tumours such as benign follicular hyperplasia. Experience of other tumours treated with Mohs surgery would also be expected.

3. Provide expertise in post Mohs wound reconstruction. The fellow should keep a logbook of their reconstructive training and evidence their experience of:

    a. Completing at least 150 procedures involving flaps, grafts, direct closure and where appropriate second intention healing.

    b. In addition, in at least a further 100 cases have been first operator for reconstruction of the nasal tip/ ala/columella, perioral, periocular and auricular areas, including advancement, rotation, transposition, interpolation flaps, grafts and direct closure. Of these 100 cases, a minimum of 20 should be performed on each of the four areas and no more than 10 overall should be direct closure.

Mohs competency would normally be expected to be acquired after 12 months of training.

Training abroad should meet equivalent standards and if a foreign trainee has never worked in the NHS then they would be expected to join an existing NHS unit and be overseen until deemed competent.

Appendix 3: Mohs Coding Form

Patient Details: Episode of Care: Inpatient/Day Case

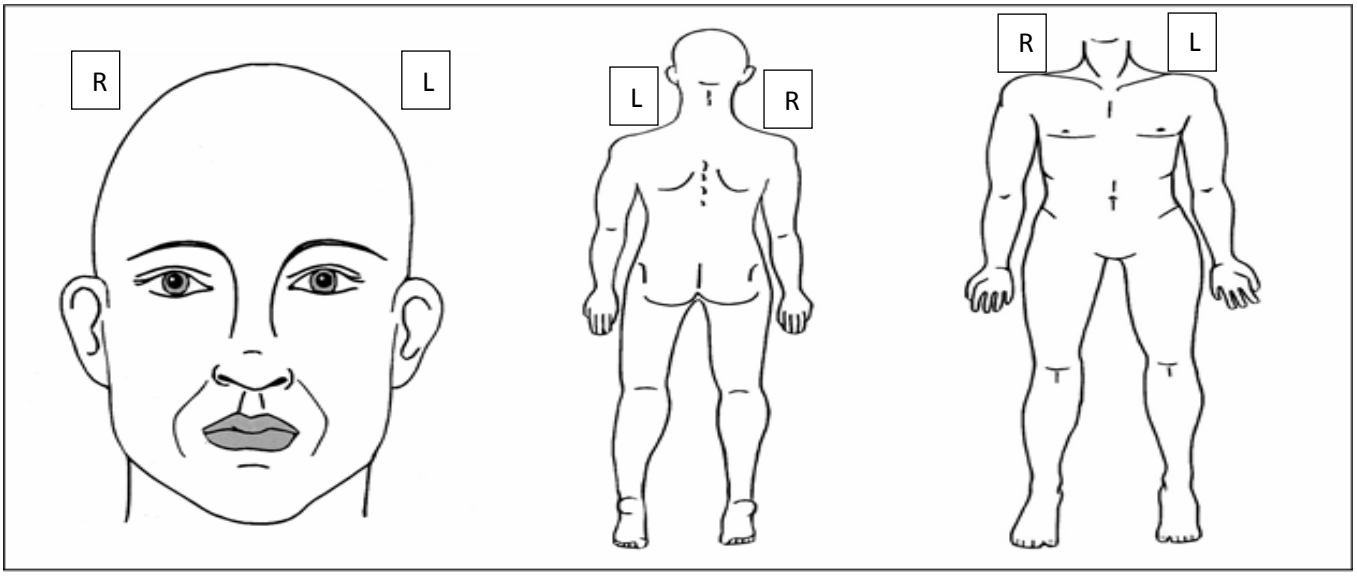
Consultant: Trust Name:

1. **Histology Date:** …… **MDT Date:** …… **Procedure Date:** ……
2. **Please select Diagnosis:**

	BCC		DFSP
	SCC		Sebaceous Carcinoma
	Lentigo Maligna		Microcystic adnexal carcinoma
	Other: (please specify)		

3. **Site/ Side**

	Eyelid		Canthus		Eyebrow
	Cutaneous Lip		Mucosal Lip		External ear
	Nose		Scalp		Male genitalia
	Female genitalia		Trunk and limbs		Digits
	Other Site: (please specify)				



4. **Co-Morbidities/Complications: (Circle presenting conditions at time of treatment)**

Previous chemo/radiotherapy	Drug Dependency	Alcohol Dependency	Cerebrovascular disease
Hypertension	COPD/COAD	Smoking	Asthma
Acute/Chronic Renal failure	Chronic liver disease	Immuno-suppressants	Epilepsy
Parkinson's Disease	Dementia	Multiple Sclerosis	History of Falls
Diabetes Type I/II	Bleeding disorders	Long Term Anticoagulation	History of Malignant disease

Schizophrenia	Psychosis	History of self-harm	Other Mental Health problems
Rheumatoid Arthritis	Dysphasia	Dysphagia	Ischaemic Heart Disease
Cardiac failure	Sickle Cell disease	Anaemia	Blood disorders
Immobility	Deaf/Hearing loss	Lives alone	Spinal/Skeletal injury
Decubitus ulcer	Vasculitis	Chronic ulcer	
Other: (Please specify)			

5. Mohs Procedures:

☐	S051	Microscopically controlled excision of lesion of skin of head or neck using fresh tissue technique (MMS head and neck only)	☐	S055	Microscopically controlled excision of lesion of skin of head or neck NEC (Slow Mohs head and neck only)
☐	S052	Microscopically controlled excision of lesion of skin using fresh tissue technique NEC (MMS excludes head and neck)	☐	S058	Other specified microscopically controlled excision of lesion of skin (Slow Mohs excludes head and neck)
☐	Number of Mohs Sections		☐	S059	Unspecified microscopically controlled excision of lesion of skin

6. Reconstruction: (excludes reconstruction procedure undertaken by a separate reconstructive surgeon)

Select Flap Type - Delete procedure type as applicable			Select Graft type - Delete procedure type where applicable		
☐	Local	Pedicle / Axial / Random/sensory	☐	Autograft	Mesh / Split / Full / Composite
☐	Distant Flap	Axial / Random	☐	Xenograft	
☐	Flap	Z plasty/ W plasty	☐	Pinchgraft	
Select Extent of reconstruction (if applicable):					
☐	Skin with sub-cutaneous tissue		☐	Involving muscle	
☐	Involving fascia		☐	Involving periosteum/ bone	
☐	Hair bearing flap of skin		☐	Involving mucosa	

7. Dressing:

☐	S561	Debridement of skin of Head or Neck	☐	S573	Toilet of skin NEC
☐	S571	Debridement of skin NEC	☐	S564	Dressing of skin of head and neck
☐	S563	Toilet of skin of head or neck	☐	S574	Dressing of skin NEC

8. Follow- up:

☐	Outpatient Appointment	☐	After care Advice Sheet
☐	Onward referral	☐	Discharge

References

Evidence searches were made using the following electronic databases in May 2014: Cochrane Library; PubMed; British Medical Journal (BMJ); British Journal of Dermatology (BJD); Royal Society of Medicine (RSM) Library.

Our selection criteria included the headings from our Service Guidance and Standard's core principles, on a generalist and clinical intervention level (e.g. general facilities versus clinical intervention-specific facilities). This provided us with a wider scope, due to the limited availability of service-based evidence.

Evidence Search: May 2014 (Updated December 2019)

	Standard						Last reviewed
	1	2	3	4	5	6	
Core Evidence							
Confidentiality. Good Practice in Handling Patient Information. General Medical Council. 2018.	X	X	X	X	X	X	December 2019
Care Quality Commission, The Fundamental Standards	X	X	X	X	X	X	December 2019
Health and Social Care Act 2008 (Regulated Activities) Regulations 2014	X	X	X	X	X	X	December 2019
Data Protection Act 2018	X	X	X	X	X	X	December 2019
Equality Act 2010.	X	X	X	X	X	X	December 2019
Fitness to Practice Rules. Nursing and Midwifery Council. 2004.			X	X			December 2019
Essential Standards of Quality and Safety. Care Quality Commission. 2010.	X	X	X	X	X	X	December 2019
Good Medical Practice. General Medical Council. 2013.	X	X	X	X	X	X	December 2019
How to write in Plain English. The Plain English Campaign.	X	X	X	X	X	X	December 2019
Principles for best practice in clinical audit. NICE. 2008.					X	X	December 2019
Records Management. NHS Code of Practice. 2006.		X		X		X	December 2019
Confidentiality. NHS Code of Practice. 2003.	X	X	X	X	X	X	December 2019
National Health Service Standard Contract 2018.	X	X	X	X	X	X	December 2019
National Institute for Health and Care Excellence. Health and Social Care Directorate Quality Standards Process Guide. 2016.	X	X	X	X	X	X	December 2019
NICE guidelines on behaviour change: individual approaches and behaviour change: general approaches.	X	X	X	X	X	X	December 2019
NICE guidelines on medicines adherence and medicines optimisation.	X			X		X	December 2019

NICE guideline on transition from children's to adults' services for young people using health or social care services							December 2019
NICE guideline on patient experience in adult NHS services	X	X		X			December 2019
Specialty Training Curriculum for Dermatology. 2010. Joint Royal Colleges of Physicians Training Board.			X	X			December 2019
Cancer services: Case for Change. Commissioning Support for London. 2010.	X	X	X	X	X	X	December 2019
BAD Guide to Validating Consent: Dermatology Examinations or Treatments (2017)		X		X			December 2019
Local Standards for Invasive Surgical Procedures	X	X	X	X	X	X	December 2019
WHO Surgical Safety Checklist	X	X	X	X	X	X	December 2019
Care Quality Commission, Statutory Duty of Candour 2016	X	X	X	X	X	X	December 2019
Control of Substances Hazardous to Health (COSHH) Regulations 2002, Health and Safety Executive					X		December 2019
Health and Safety Executive (HSE) Local exhaust ventilation workplace fume and dust extraction (Fume cupboards BS 7258 Parts 1-4 1994)					X		December 2019
British Association of Dermatologists, A Guide to Job Planning Guidance for Dermatologists 2018			X	X			December 2019
National Cancer Waiting Times Monitoring Dataset Guidance Version 10.0, NHS England Publication Reference Number: 000236	X	X	X	X	X	X	December 2019
General Medical Council Specialty Training Curriculum for Dermatology August 2010			X				December 2019
DH Core elements - Health Building Note 00-03: Clinical and clinical support spaces					X		December 2019
NHS Estates HBN 12 Out- patients department					X		December 2019
Health Building Note 26 – Facilities for Surgical Procedures Volume 1					X		December 2019
Health Building Note 13 – Sterile Services Department					X		December 2019
Health Building Note 30 – Infection Control in the Built Environment					X		December 2019
NHS Data Model and Dictionary definition of a day case	X	X	X	X	X	X	December 2019
IEC 60601-2-41, 2nd edition, Medical electrical equipment – Part 2-41: Particular requirements for basic safety and essential performance of surgical luminaires and luminaires for diagnosis, draft, 2009, p. 21.					X		December 2019
CIBSE Lighting Guide No.2 1989 Hospitals and Healthcare Buildings					X		December 2019
Health and Safety Executive (HSE) – COSHH GUIDANCE – Surgical smoke					X		December 2019

Resuscitation Council (UK) (2004, revised 2008): Cardiopulmonary Resuscitation - Standards for Clinical practice and training					X		December 2019
Department of Health (2006) *Health Technical Memorandum 07-01: Safe Management of Healthcare Waste* (Gateway ref. 6874).					X		December 2019
British Standards Institute BS7320 (1990) 'Specification for Sharps Containers'. London. Health and Safety Executive (HSE): Control of Substances Hazardous to Health (COSHH) Regulations 2002.					X		December 2019
British National Formulary: Local Anaesthesia guidance	X		X	X			December 2019
Department of Health: Reference guide to consent for examination or treatment		X					December 2019
Consent guidance: The scope of decisions		X					December 2019
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Glossary of Abbreviations

AFX	Atypical Fibroxanthoma
A&G	Advice and Guidance
BAD	British Association of Dermatologists
BAOMS	British Association of Oral and Maxillofacial Surgeons
BCC	Basal Cell Carcinoma
BJD	British Journal of Dermatology
BMJ	British Medical Journal
BOPSS	British Oculoplastic Surgery Society
BSDS	British Society for Dermatological Surgery
BSMH	British Society of Mohs Histologists
CNS	Cancer Nurse Specialist
COSHH	Control of Substance Hazardous to Health
DFSP	Dermatofibrosarcoma Protuberans
ENT	Ears, Nose and Throat
EQA	External Quality Assurance
HCPC	Health and Care Professions Council
HSE	Health Safety Executive
IBMS	Institution of Biomedical Science
IPT	Inter-Provider Transfers
IQA	Internal Quality Assurance
LocSSIPs	Local Safety Standards for Invasive Procedures
LSMDT	Local Skin Cancer Multidisciplinary Team
MAC	Microcystic Adnexal Carcinoma

MDT	Multi-Disciplinary Team: all health professionals involved in patient care
MMS	Mohs Micrographic Surgery
NICE	National Institute for Health and Clinical Excellence
NMC	Nursing and Midwifery Council
NMSC	Non-Melanoma Skin Cancer
PA	Programmed Activities
POSAS	Patient and Observer Scar Assessment Scale
QST	Quality Surveillance Team
RAS	Referral Assessment Service
RSM	Royal Society of Medicine
RTT	Referral-to-Treatment
SCC	Squamous Cell Carcinoma
SEER	Surveillance, Epidemiology and End Results
SSMDT	Specialist Skin Cancer Multidisciplinary Team
UKNEQAS	United Kingdom National External Quality Assurance Scheme
WPG	Working Party Group

Glossary of Terms

Advice and Guidance

Advice and guidance allows a clinician to seek advice from another, providing digital communication between two clinicians: the "requesting" clinician and the provider of a service, the "responding" clinician.

Audit

Systematic review of the procedures used for diagnosis, care, treatment and rehabilitation, examining how associated resources are used and investigating the effect care has on the outcome and quality of life for the patient.

Clinical Audit

Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Aspects of the structure, processes, and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team, or service level and further monitoring is used to confirm improvement in healthcare delivery (National Institute for Health and Clinical Excellence).

Clinical governance

Clinical governance provides a quality framework through which healthcare organisations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which clinical excellence will flourish.

Clinical practice guidelines

Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances. They aim to provide evidence-based interventions to improve patient outcomes.

Clinical supervision

Clinical supervision is a formal process of professional support and learning which enables individual practitioners to develop knowledge and competence. Clinical Supervision is central to the process of learning and to the scope of the expansion of practice and should be seen as a means of encouraging self-assessment analytical and reflective skills.

Clinician
A clinician is a professionally qualified person providing clinical care to patients.

Competent
Competent means that the individual can perform the task with ability.

Consultant
A person contracted by a health care provider who has been appointed by a Consultant's Appointment Committee. They must be a member of a Royal College or Faculty.

Consultant-Led Service
A consultant-led service is a service where a consultant retains overall clinical responsibility for the service, care professional team or treatment. The consultant will not necessarily be physically present for each consultant-led activity, but the consultant takes clinical responsibility for each patient's case.

Contract reviews
Contract reviews are periodic evaluations performed by the service provider and the customer to ensure that the agreement specifies all of the customer's requirements and that all of those requirements are being satisfied.

Data
Data refers to all records and correspondence.

Equality
This means recognising that while people are different and need to be treated as individuals, everyone is the same in terms of having equal value, equal rights as human beings and a need to be treated with dignity and respect.

Fit to practise
The health professional possesses the appropriate knowledge, skills and experience to practise safely and effectively.

Health care
Health care refers to services provided for or in connection with the prevention, diagnosis or treatment of illness, and the promotion and protection of public health.

Multidisciplinary
A multidisciplinary team is a group of people from different disciplines (both healthcare and non-healthcare) who work together to provide care for patients with a particular condition. The composition of multidisciplinary teams will vary according to many factors. These include: the specific condition, the scale of the service being provided, and geographical/socio-economic factors in the local area.

Peer review
Peer review is a structured, consistent and objective evaluation of an organisation or its services or processes reflecting accepted standards. It should be performed by true peers: i.e.

similar professionals.

Quality
Quality is used in this document to denote a degree of excellence.

Quality assurance
Quality assurance refers to the planned and systematic activities that gives confidence or make certain that quality requirements for a product or service will be fulfilled.

Research
Research is the gathering of data, information and facts and aims to derive generalisable new knowledge.

Slow Mohs
Slow or paraffin section Mohs represents a staged excision where the margins are processed as rush permanent sections rather than the frozen sections integral to conventional Mohs. Slow MMS employs the same tissue mapping principles and horizontal sections as standard frozen MMS but is used when rapid paraffin sections are deemed essential for higher Mohs section quality.

Scope of practice
Scope of practice refers to the areas of a health professional's occupation where they have the knowledge, skills and experience to practise safely and effectively.

Service level agreement
A service level agreement is a document which specifies the services that will be delivered and the way in which they will be delivered to ensure uniform understanding.

Staff
The entire group of people who work at an organisation including those who are:
- Employed / agency / bank / voluntary;
- Clinical e.g. nurses, doctors and occupational health technicians;
- Non-clinical e.g. administrative staff.

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Mohs Micrographic Surgery Standards Consultation Form

We hope that you have found the MMS standards useful and would very much appreciate your feedback.

1. Have you found these standards useful? Yes/No Comments:
2. Do you have suggestions for new sections or topic areas you would like to see included in future versions?
3. Do you have suggestions for new standards you would like to see included in future versions?
4. Do you have any general suggestions about this document that would improve its usefulness?
5. What is your profession?

Thank you for taking the time to complete this form. Your comments will be considered carefully.

Please return this form to:

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