Indications for Mohs

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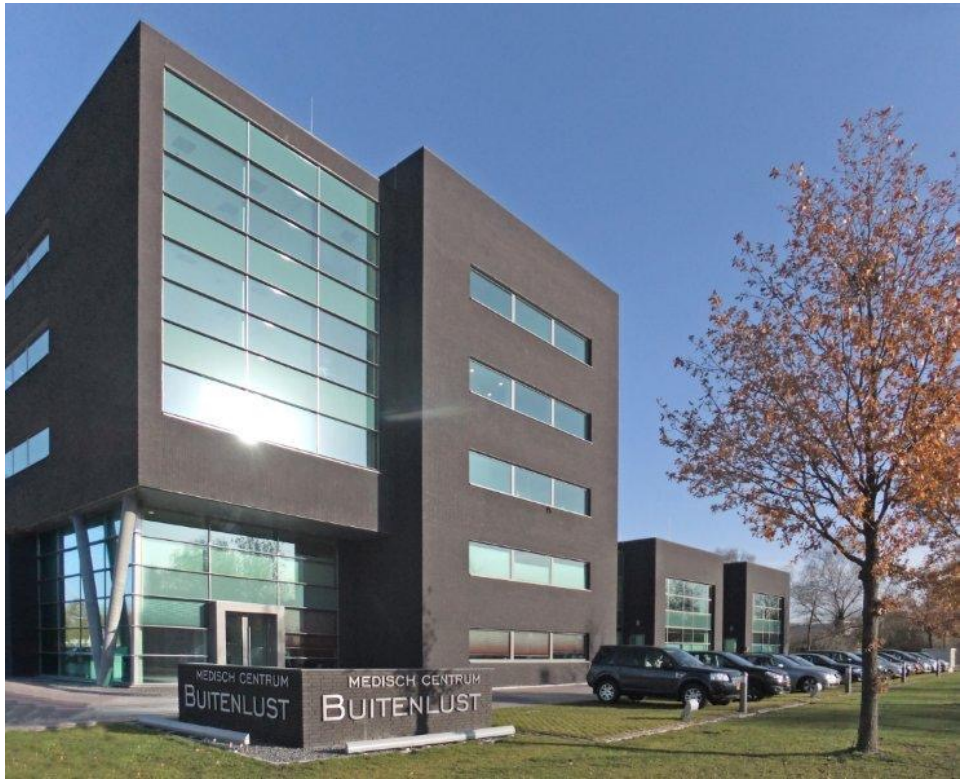
MOHS A
Mohs *Academy* Expertisecentrum
voor huidkanker en Mohs-Chirurgie



MOHS A
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ESMS

- Create awareness for Mohs and Micrographic Surgery
- Support Mohs and Micrographic surgeons in Europe and beyond
- Criteria for Mohs surgeons and Mohs Trainers
- Set up a position paper for Mohs indications
- Start with lab technician membership and training

Mohs in Europe

- No European Guideline for Mohs surgery
- No standard European Indications for Mohs surgery
- No standard European Fellowship for Mohs training
- No standard European Training for Lab technicians

- American College of Mohs Surgery
- American Society of Mohs Surgery

Mohs in Europe

Challenges to accessing Mohs

- Healthcare systems/cultures
- Cost and reimbursement
- Training
- Multiple micrographic techniques

Healthcare systems

- Mixture of public and private practice
- Salaried vs fee for service
- Skin cancer not always managed by dermatologists
- Variety of Labor laws

Cost and reimbursement

- Fresh frozen technique not reimbursed in some countries eg Germany
- Reimbursement falling in all systems

Recent study on Mohs indications

- Hoorens et al. Br J Dermatol 2016.
- 1062 patients Mohs for BCC in the face 1998-2011 in Gent, Belgium.
- mean of 2 Mohs rounds.
- Strong indicators for Mohs: >1 cm2, aggressive subtype
- however:
- >3 Mohs rounds for recurrent BCCs, aggressive subtype, located in H-zone
- With Mohs surgery 0.5 cm2 skin was preserved compared to excision with 3 mm margin.

Appropriate use criteria

- BCC/SCC
- melanoma in-situ +
- many other tumours
- Cosmetically and functionally important areas
- High risk areas

In UK NICE (National Institute for Health and Care Excellence) approval since 2006

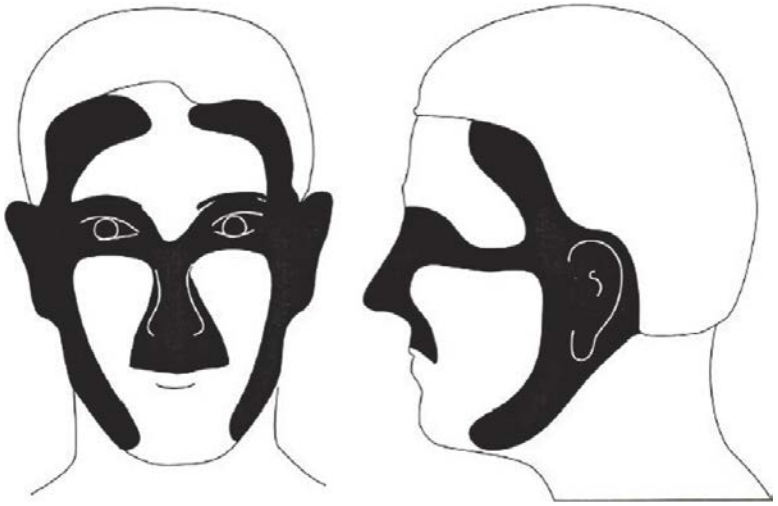
Appropriate use criteria

- Recurrent or incompletely excised BCC and SCC
- Primary BCC and SCC where the edges of the cancer cannot be clearly defined

Appropriate use criteria

- BCC and SCC in an area where it is important to preserve healthy tissue for maximum functional and cosmetic result, such as eyelids, nose, ears, lips, genitals, hands, feet
- BCC and SCC that is large (> 2cm in diameter) or growing rapidly

H-zone



Appropriate use criteria

- Cancer arising in scars or in sites of previous radiation therapy
- High risk or aggressive types of SCC (e.g. infiltrative histology, poorly differentiated)

Appropriate use criteria

- Where patient has multiple, small, less aggressive tumours in same surgical area (NBCCS)
- Young patients who may expect to have further skin cancers on the face in future.

appropriate use criteria

- Most BCC and SCC are clearly defined tumours in low risk sites, and can be dealt with by simple standard excision or other methods

Mohs surgery AUC

The AAD has developed its first appropriate use criteria (AUC) on Mohs micrographic surgery in collaboration with the following organizations:

- American College of Mohs Surgery
- American Society for Mohs Surgery
- American Society for Dermatologic Surgery Association

More than 75 physicians contributed to the development of the Mohs surgery AUC, which were published in the *Journal of the American Academy of Dermatology* and *Dermatologic Surgery*.

DOWNLOAD THE MOHS SURGERY AUC

FROM THE ACADEMY

AAD/ACMS/ASDSA/ASMS 2012 appropriate use criteria for Mohs micrographic surgery: A report of the American Academy of Dermatology, American College of Mohs Surgery, American Society for Dermatologic Surgery Association, and the American Society for Mohs Surgery

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Ratings Panel: Timothy G. Berger, MD,[j,†] Michael Bigby, MD,[k,†] Jean L. Bolognia, MD,[l,†] David G. Brodland, MD,[m,‡] Scott Collins, MD,[n,§] Terrence A. Cronin, Jr, MD,[o,//] Mark V. Dahl, MD,[a,†] Jane M. Grant-Kels, MD,[p,†] C. William Hanke, MD,[q,‡] George J. Hruza, MD,[r,§] William D. James, MD,[s,†] Clifford Warren Lober, MD, JD,[t,//] Elizabeth I. McBurney, MD,[u,†] Scott A. Norton, MD, MPH,[v,†] Randall K. Roenigk, MD,[h,†] Ronald G. Wheeland, MD,[w,†] and Oliver J. Wisco, DO[x,†]
Scottsdale and Tucson, Arizona; Lake Oswego and Tigard, Oregon; Cincinnati and Cleveland, Ohio; Sacramento and San Francisco, California; Palos Heights and Schaumburg, Illinois; Florence, Kentucky; Rochester, Minnesota; Boston, Massachusetts; New Haven and Farmington, Connecticut; Pittsburgh and Philadelphia, Pennsylvania; Miami and Tampa, Florida; Indianapolis, Indiana; Chesterfield, Missouri; New Orleans, Louisiana; Washington, District of Columbia; and Biloxi, Mississippi

Tumor characteristics

Positive margin on recent excision. Unexpected tumor involvement at lateral and/or deep edges after prior excision presumed to have been definitive.

Aggressive features (eg, high-risk for recurrence)

- For BCC:
  Morpheaform/fibrosing/sclerosing
  Infiltrating
  Perineural
  Metatypical/keratotic
  Micronodular
- For SCC:
  Sclerosing
  Basosquamous (excluding keratotic BCC)
  Small cell
  Poorly or undifferentiated (characterized by a high degree of nuclear polymorphism, high mitotic rate, or low degree of keratinization)
  Perineural/perivascular
  Spindle cell
  Pagetoid
  Infiltrating
  Keratoacanthoma (KA) type: central facial
  Single cell
  Clear cell
  Lymphoepithelial
  Sarcomatoid
  Breslow depth 2 mm or greater
  Clark level IV or greater

Table III. Basal or squamous cell carcinoma

Primary BCC or SCC regardless of subtype, size, or depth arising in:

- Prior radiated skin
- Traumatic scar
- Area of osteomyelitis
- Area of chronic inflammation/ulceration
- Patients with genetic syndromes

	Appropriate use score (1-9)		
Indication	**Area H**	**Area M**	**Area L**
74	**A (9)**	**A (9)**	**A (7)**

Appropriate use scores and final ratings for 3 combined BCC or SCC indications. Appropriate indications (A; scores 7-9) are colored green.
Area H: 'Mask areas' of face (central face, eyelids [including inner/outer canthi], eyebrows, nose, lips [cutaneous/mucosal/vermillion], chin, ear and periauricular skin /sulci, temple), genitalia (including perineal and perianal), hands, feet, nail units, ankles, and nipples/areola.
Area M: Cheeks, forehead, scalp, neck, jawline, pretibial surface.
Area L: Trunk and extremities (excluding pretibial surface, hands, feet, nail units and ankles).
BCC, Basal cell carcinoma; *SCC*, squamous cell carcinoma.

Table VI. Ratings category summary for basal cell carcinoma, squamous cell carcinoma, lentigo maligna, and melanoma in situ

AREA H	Appropriate	Uncertain	Inappropriate
BCC	Primary or recurrent: Aggressive Nodular Superficial		
SCC	Primary or recurrent: Aggressive Nonaggressive* Verrucous KA-type SCC† In situ SCC/Bowen		Primary or recurrent: AK with focal SCC in situ
LM and MIS	Primary or recurrent: LM MIS		
AREA M	**Appropriate**	**Uncertain**	**Inappropriate**
BCC	Recurrent or primary: Aggressive Nodular Superficial (IC) Primary: Superficial ≥ 0.6 cm	Primary: Superficial ≤ 0.5 cm	
SCC	Primary or recurrent: Aggressive Nonaggressive* KA-type SCC† In situ SCC/Bowen		Primary or recurrent: AK with focal SCC in situ
LM and MIS	Primary or recurrent: LM MIS		
AREA L	**Appropriate**	**Uncertain**	**Inappropriate**
BCC	Recurrent: Aggressive Nodular Primary: Aggressive ≥ 0.6 cm Nodular > 2 cm Nodular (IC) ≥ 1.1 cm	Primary: Aggressive ≤ 0.5 cm Nodular 1.1-2 cm Nodular (IC) 0.6-1 cm Superficial (IC) ≥ 1.1 cm	Recurrent Superficial Primary: Nodular ≤ 1 cm Nodular (IC) ≤ 0.5 cm Superficial Superficial (IC) ≤ 1 cm
SCC	Primary or recurrent: Aggressive Recurrent: KA-type SCC† Nonaggressive* Primary > 2 cm Nonaggressive* In situ SCC/Bowen Primary ≥ 1.1 cm Nonaggressive (IC)* KA-type SCC† In situ SCC/Bowen (IC) KA-type SCC (IC) ≥ 0.6 cm†	Recurrent SCC in situ/Bowen Primary 1.1-2 cm Nonaggressive* SCC in situ/Bowen Primary ≤ 1 cm Nonaggressive (IC)* Primary 0.6-1 cm SCC in situ/Bowen (IC) Primary ≤ 0.5 cm KA-type SCC (IC)†	Primary or recurrent: AK with focal SCC in situ Primary ≤ 1 cm Nonaggressive* KA-type SCC† SCC in situ/Bowen Primary ≤ 0.5 cm SCC in situ/Bowen (IC)
LM and MIS	Recurrent: LM MIS	Primary: LM MIS	

Listed indications are for both healthy and IC patients, and tumors of any size unless otherwise specified.
Area H: 'Mask areas' of face (central face, eyelids [including inner/outer canthi], eyebrows, nose, lips [cutaneous/mucosal/vermillion], chin, ear and preauricular skin /sulci, temple), genitalia (including perineal and perianal), hands, feet, nail units, ankles, and nipples/areola.
Area M: Cheeks, forehead, scalp, neck, jawline, pretibial surface.
Area L: Trunk and extremities (excluding pretibial surface, hands, feet, nail units and ankles).

"A chance to cut is a chance to check all peripheral margins" (Siegel,2004)

Thank you