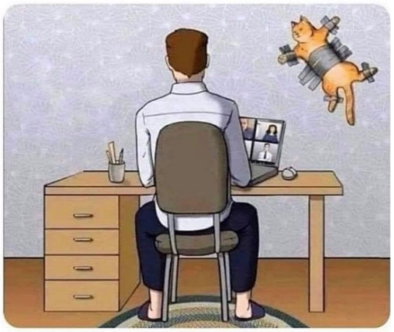
How to prepare for a Zoom meeting



Dermatologic Surgery Update

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Disclosures

- No disclosures

DOGMA

- a principle or set of principles laid down by an authority as incontrovertibly true
- a point of view or tenet put forth as authoritative without adequate grounds

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Dermatology Dogma

- Don’t stop a patient’s anticoagulate meds for skin surgery
- Patient will have a stroke and die
- Don’t use a hyfrecator with a pacer or defib
- It can cause their device to misfire

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Thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery

- Spyros M. Siscos, MD,a Brett C. Neill, MD,a Anjali Hocker Singh, CRA,b and Thomas L. H. Hocker, MD
- J Am Acad Dermatol 2021;84:425-31

Thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery

- Study looked at thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery
- apixaban, rivaroxaban, and dabigatran
- Assess 30-day postoperative rate of thrombotic complications (ischemic stroke, TIA, systemic embolism, DVT, PE)
- Patients- nonvalvular atrial fibrillation (AF) or a history of DVT
- Given perioperative DOAC interruption during dermatologic surgery
- Retrospective medical record review

Thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery

- 806 operations- 750 Mohs (93.1%), 56 WE (6.9%),
- 1 patient (0.14% of patients with AF) sustained TIA
- 2 patients (0.25% of all patients) sustained minor bleeding complications during the 30-day postoperative period
- Perioperative interruption of direct oral anticoagulants appears to be safe and efficacious in dermatologic surgery
- Consistent with multiple recent studies on periprocedural DOAC interruption in the non-derm literature

Thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery

- Large meta-analysis that included 19,353 patients w/ nonvalvular AF who underwent perioperative DOAC interruption or DOAC continuation demonstrated no increase in the 30-day rates of arterial thromboembolism
- 0.4% with DOAC interruption vs 0.6% with DOAC continuation
- There is ‘‘baseline risk’’ for arterial thromboembolism in this patient population even when DOACs are continued throughout the perioperative period

Thrombotic complications with interruption of direct oral anticoagulants in dermatologic surgery

Table III Perioperative direct oral anticoagulation interruption and resumption protocol for dermatologic surgery

Present study protocol	Creatinine clearance (mL/min)	Interruption any bleed risk	Resumption any bleed risk		
Apixaban	Any	24 h	24 h		
Rivaroxaban					
Dabigatran					
ACC guidelines		**Low**	**High**	**Low**	**High**
Apixaban	≥30	≥24 h	≥48 h	24 h	48-72 h
Rivaroxaban					
Dabigatran	≥80	≥24 h	≥48 h	24 h	48-72 h
	30-79	≥36-48 h	≥72-96 h		
	15-29	≥72 h	≥120 h		

ACC, American College of Cardiology.

Investigation of Hyfrecators and Their In Vitro Interference with Implantable Cardiac Devices

- Christopher Weyer, DO; Ronald J. Siegle, MD, and Guillaume Girard P. ENG, EMI-EMC
- Dermatol Surg 2012 Nov;38(11):1843-8

Investigation of Hyfrecators and Their In Vitro Interference with Implantable Cardiac Devices

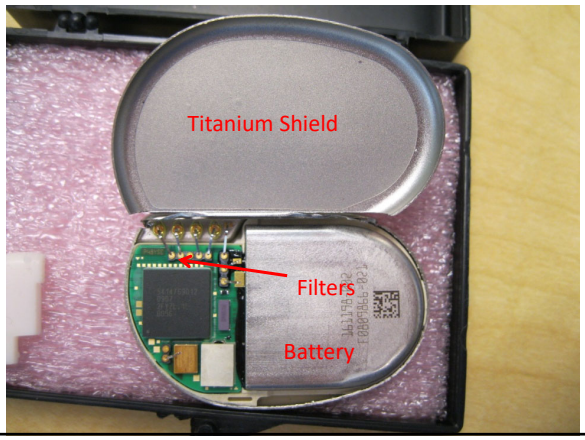
- Collagen-based saline gel-3 pacers, 3 defibs were tested to measure the electromagnetic interference (EMI)
- Conmed Hyfrecator 2000, McKesson 22 – 900 High Frequency Desiccator
- 6 devices were tested using the hyfrecators under normal use settings and on maximum power

Test Setup

- Collagen base saline gel with resistivity at 375 ohm-cm
  - 11 grams of salt mixed with 7.56 liters of de-ionized water and proprietary animal based collagen mix
- This is based on the American Association of Medical Instrumentation (AAMI) PC 69 standards
- The collagen was added to more closely simulate the human soft tissue environment
- Within the gel container, the devices and associated implantable leads are positioned so that the two dimensional area enclosed inside the lead loop is approximately 200 cm^2

Review of the Cardiac Devices

- Advances in CRM devices have decreased the potential for EMI
  - Titanium Shield, Filters feed through (suppress high frequencies),
  - Algorithms (More sophisticated)



Test Setup

Telemetry session activation and parameters check.

Test Setup

Test 1: IPG/ICD Electrode tip/ring distance to Hyfrecator wand tip

- Hyfrecator tip was positioned close to cardiac leads.
- Simulating electrodessication, the tip was submersed and moved around the leads
- Repeated using fulguration

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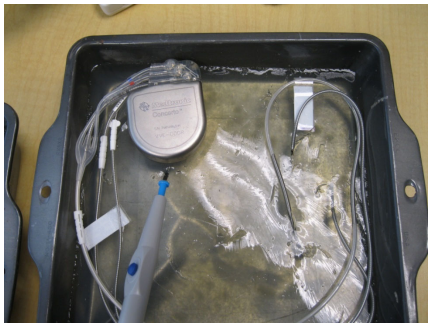
Test 2: IPG/ICD Device distance to Hyfrecator wand tip

- Hyfrecator tip positioned close to, also directly on devices and the connectors
- Simulating electrodessication, the tip was submersed and moved slightly on and around the device and connector area
- Repeated using fulguration



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Investigation of Hyfrecators and Their In Vitro Interference with Implantable Cardiac Devices

- Defibrillator devices
  - No effect with testing near the implanted leads,
  - No effect on or near the device can
- No antitachycardic pacing activated
- No charging of the defibrillators
- No accidental discharges were observed
- “Magnet mode” also did not show any abnormalities
- No permanent damage to the device or leads were observed

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Investigation of Hyfrecators and Their In Vitro Interference with Implantable Cardiac Devices

- Hyfrecators did not interfere with defibrillators
- Pacemakers affected only when used in close proximity to the device
- Pacemakers- atrial inhibition was observed at a distance of 3 cm on maximum hyfrecator settings. 1 cm at normal use settings.
- Ventricular inhibition occurred in very close proximity to the device (<1 cm) or in direct contact
- Hyfrecators are safe to use in patients with defibrillators and can be used in pacemaker patients within 2 inches of the device perimeter

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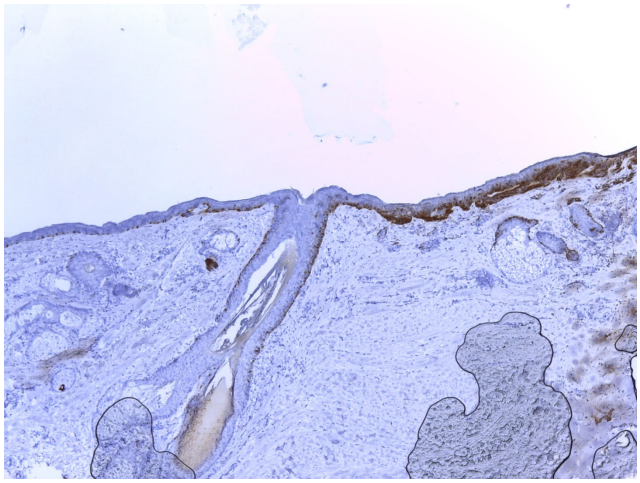
Mohs for Melanoma using Immunohistochemestry

- Melanoma antigen recognized by T cells (MART- 1) stain
- Sensitive and specific marker for the diagnosis of melanoma
- Allows for complete evaluation of the lateral margin (subclinical spread)
- Central area sent for evaluation of remaining invasive Dz and final staging



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Low recurrence rates for in situ and invasive melanomas using Mohs micrographic surgery with melanoma antigen recognized by T cells 1 (MART-1) immunostaining: Tissue processing methodology to optimize pathologic staging and margin assessment

- Jeremy Robert Etzkorn, MD, Joseph F. Sobanko, MD, Rosalie Elenitsas, MD, Jason G. Newman, MD, Hayley Goldbach, BS, Thuzar M. Shin, MD, and Christopher J. Miller, MD
- J Am Acad Dermatol 2015;72:840-50
- Nice review with illustrations of the lateral margin assesment

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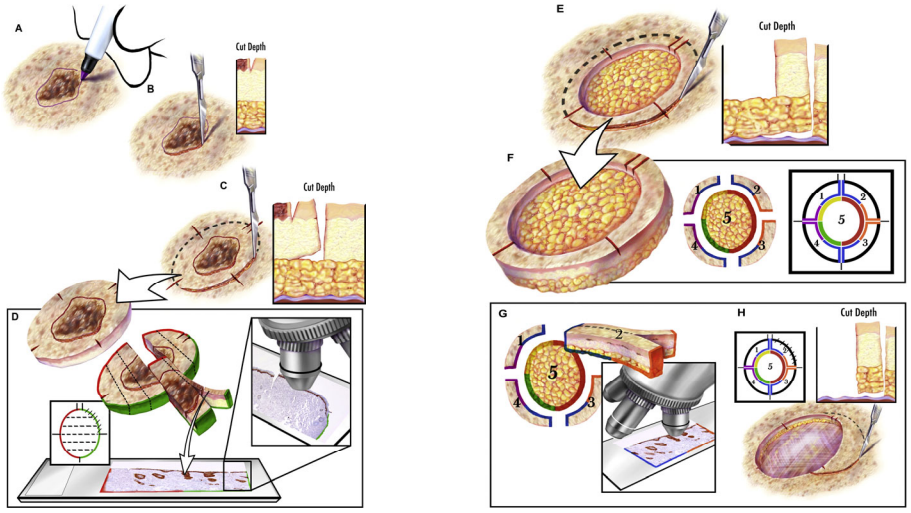
Mohs for Melanoma



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Mohs micrographic surgery for melanoma: A prospective multicenter study

- Patrick M. Ellison, MD, John A. Zitelli, MD, and David G. Brodland, MD
- J Am Acad Dermatol 2019;81:767-74

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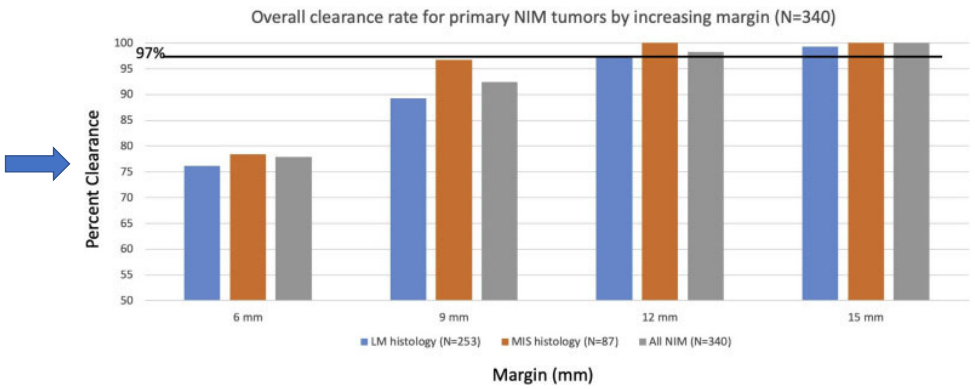
Mohs micrographic surgery for melanoma: A prospective multicenter study



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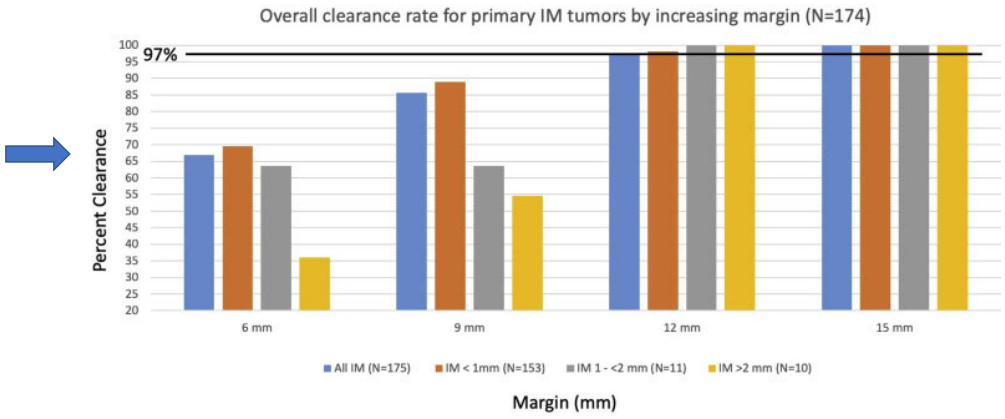
Mohs micrographic surgery for melanoma: A prospective multicenter study



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Melanomas of the head and neck have high- local recurrence risk features and require tissue-rearranging reconstruction more commonly than basal cell carcinoma and squamous cell carcinoma: A comparison of indications for microscopic margin control prior to reconstruction in 13,664 tumors

- William Fix, BA, Jeremy R. Etzkorn, MD, Thuzar M. Shin, MD, PhD, Nicole Howe, MD, Mehul Bhatt, MD, Joseph F. Sobanko, MD, and Christopher J. Miller, MD
- JAAD Aug 2021 409-418

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Melanomas of the head and neck have high- local recurrence risk features and require tissue-rearranging reconstruction more commonly than basal cell carcinoma and squamous cell carcinoma: A comparison of indications for microscopic margin control prior to reconstruction in 13,664 tumors

- Compared w/ BCC & SCC- melanomas were significantly more likely to have high-local recurrence risk features
  - larger preoperative size 2.10 cm vs 1.30 cm
  - recurrent status (any prev tx) 5.08% vs 3.91%
  - subclinical spread (2+ mohs layers) 31.73% vs 26.52%
  - Tissue-rearranging reconstruction (local or interpolated flaps) 44.68% vs 33.02%

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Mohs for Melanoma

- LM, Breslow 0.4mm
- Woods light exam
- Standard Margin 1 cm
- Mohs Starting Margin 0.5 cm
- Repair Linear, sparing flap repair.

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Mohs for Melanoma

- LM Breslow 0.2mm
- Woods Light exam
- Standard Margin 1cm
- Mohs starting margin 0.5cm
- Repair linear



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Thank You

- Questions
- chrisweyerdo@gmail.com