



SKIN BIOPSY CURRICULUM

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Introduction/Overview

- Develop a curriculum to teach skin biopsy techniques to medical learners
- Impart the technical skills, as well as the cognitive understanding, of how to perform various skin biopsy techniques
- Flip the classroom, eliminating the lecture time, allowing the students to use the time to attend a clinical hands-on workshop to develop their technical skills

Needs Assessment

- Medical schools currently do not teach how to perform a skin biopsy
- Reports of limited dermatology manpower, especially in rural and underserved areas, suggest that there is a need for medical practitioners to perform basic diagnostic procedures competently
- Recent studies have indicated the effectiveness of online teaching and having access to an online skin biopsy curriculum would free up valuable faculty time

Goal

For the medical learner to engage actively in an educational program to gain the skills, confidence, and ability to identify and perform various skin biopsy techniques

Objectives

- Identify the indications for doing a skin biopsy
- Understand the indications for choosing a punch versus a shave biopsy
- Perform a punch biopsy
- Understand the indications for performing a superficial or deep shave biopsy
- Perform both a superficial and deep shave biopsy

Instructional Strategies

- Developed and recorded an online video to teach the cognitive aspects of skin biopsies
- Used the AAD Dermatology Skills Videos to demonstrate punch and shave biopsy techniques
- Developed a clinical skills hands-on module for students to practice the various biopsy techniques

Resources

- Dermatologist/residents/interns to supervise and assist with hands-on workshop (1 supervisor/4 learners is ideal)
- Surgical instruments were borrowed and the suture material was donated
- Disposables including pigs feet, oranges, tomatoes, trays, gloves, etc. totaled \$9.40 per student
- Simskin products starting at \$50.00/resident

Implementation

- IRB approval was obtained
- An instructional video was written and recorded
- An email was sent to students containing the three video links to be viewed prior to the hands-on workshop
- The hands-on skin biopsy lab was integrated into M3 Boot Camp. Students practiced their skills on oranges, tomatoes and pigs feet
- A wrap up session with clinical scenarios was done at the end of the workshop. Turning Technology software was used to capture the students responses

What is a Skin Biopsy?



- Important diagnostic test for the evaluation of skin lesions and rashes.
- Simple procedure that can be done in the office or at the bedside.
- A small piece of skin is removed and sent to a pathologist for microscopic evaluation.
- Remember, a skin biopsy is not a substitute for good clinical skills.



Evaluation of Effectiveness

- Online teaching module
 - Matched paired pre and post written tests
 - Turning Technology Questions
- Hands-on simulation workshop
 - Turning Technology questions evaluated the students ability to choose the appropriate type of biopsy in a given clinical situation
- Overall curriculum evaluation
 - Student questionnaires given after completion of the workshop
 - M3 end-of-year Clinical Skills Experience Questionnaire

Result Highlights

- Statistical improvement in the online pre and post-test was demonstrated using the McNamara's test
- Following the lab:
 - 99% felt comfortable performing a punch or shave biopsy
 - 86% felt they could do the procedure on a patient
- Overall:
 - 95% said the amount of information was “just right”
 - 96% felt the modules were a good use of their time

Conclusions

- This skin biopsy curriculum was designed to impart the technical skills, as well as the cognitive understanding, of how to perform skin biopsies
- Students successfully engaged in both on-line and hands-on activities to gain the skills and confidence necessary to identify and perform the various types of skin biopsies
- This curriculum has become a permanent part of the M3 Boot Camp experience at NEOMED!
- It has also been incorporated into orientation of incoming dermatology residents and fellows at UH-CMC

The background features several overlapping, curved shapes in shades of blue, teal, and grey. A large white curved shape is positioned in the upper right quadrant. The text 'THANK YOU' is centered in the lower right area of the white shape.

THANK YOU