

Rural Provider Evaluation of Proper Dermatopathology Biopsy Procedures

Authors: Sammie Roberts, MD^a, Gil Weintraub, MD^a, Jaclyn B. Anderson, MD^b, Melissa R. Laughter, MD, PhD^c, Megan N. Aguilera, BA^a; Ronald Yang, BS^a



^aUniversity of Colorado School of Medicine, Aurora, CO, USA

^bDepartment of Pathology, Stanford University, Stanford, CA, USA

^cTransitional Year Residency, The University of Texas at Austin Dell Medical School, Austin, TX, USA

Background

- Up to 10% of the United States population lives in areas designated by the federal government as health professional shortage areas.
- Proper skin biopsy techniques may improve sample processing and ultimately patient outcomes.
- Our study aims to survey rural primary care professionals on biopsy technique, equipment, tissue processing and follow-up.
- We anticipate this information will elucidate sources for improvement in biopsy procedures within rural medicine as well as provide information on educational biopsy curriculum development.

Methods

- Rural providers were recruited with help from the Rural Track through the University of Colorado School of Medicine.
- Qualitative surveys were performed as 20-minute interviews with open ended questions related to the process of obtaining a dermatopathology sample.
- The surveys included a series of 8 questions in the areas of biopsy evaluation, equipment, procedure, pathology processing, follow-up, and patient education.
- During the interview encounter, responses were entered into our REDCap database and reviewed for accuracy and completeness.
- All data was stored in a de-identified format that was not linked back to the participant.

Results

Interviewee	Degree	Specialty	County	County Population Estimate ²
1	MD	Family Medicine	Chaffee	20,356
2	MD	Family Medicine	Baca	3,581
3	MD	Family Medicine	Otero	18,278
4	MD	Family Medicine	Conejos	8,205
5	MD	Internal Medicine	Montezuma	26,183

Interviewee	Quote
1	"More training on dermoscopy would help. When, what to biopsy and not biopsy. Clearer recommendations on how to proceed. Formal training on how to use a dermoscope. I think in-person training would be most helpful."
2	"Knowing critical signs of main skin cancers. The plurals and pitfalls of certain biopsies (like bigger than 1 cm, don't do a shave). More advice on do's and don'ts for melanoma. See in a consolidated way all the internet pictures for certain cancers like basal or squamous. Something that providers would look at could help them improve a lot."
3	"More practice in biopsying challenging areas like face, digits, genitals, inside mouth. More access to dermatologists to discuss patient cases and get advice (ex. facetime to see patient); logistically challenging to contact dermatologists. Main questions: what is this, and should I biopsy this?"
4	"Practice and experience helps with skin biopsies - personally feel comfortable with performing biopsies. Pathologists are generally helpful, no problems here."
5	"1. More training (like in ED&C - electrodesiccation and curettage) 2. How to do more complicated wound closure (if bigger, or closer to a wound closure)"

2. What factors make a biopsy more difficult for you to perform?

Discussion points to discuss with survey participants:

- anatomic site
- lesion size
- type of lesion
- patient demographic
- time
- blood thinners and oxygen
- lack of assistance/guidance
- lack of training
- office culture/pressure/workflow

8. What do you feel would benefit you most in regards to skin biopsies?

Discussion points with survey participants:

- Additional training:
 - when to perform a biopsy
 - biopsy technique
 - biopsy follow-up
 - Path interpretation
- Type of training:
 - seminar
 - in-person training
 - online training/videos
- How could pathologists improve their pathology reporting in regard to skin biopsies?
- What equipment would improve confidence in your biopsy techniques and tissue processing?

Conclusions

- Rural providers may benefit from additional training on when to perform a biopsy and biopsy technique.
- Educational biopsy curriculum that offers recommendations on identifying skin cancers and technique in biopsy in areas found to be more challenging.
- Easily accessible reference for providers to use in clinical settings may be beneficial.

Implications

- Rural providers are limited in their access to dermatologists for referral and often perform majority of biopsy procedures in their clinics.
- While rural providers receive training on biopsy technique, there is a need for additional training in order to improve patient care and provider comfort level, expertise

Disclosures

No financial disclosures.