



# National Retrospective Basal Cell Carcinoma (BCC) Study: Key Findings

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## Abstract

*A nationally representative sample of 270 dermatologists extracted detailed medical history and treatment information from the records of 1,080 randomly selected patients with basal cell carcinoma (BCC). To ensure randomness, the records of up to the last four patients treated for BCC were included in the study. The most frequently used treatments were excision/biopsy (38% of treatments) and curettage (32%). More than three out of five BCC treatments (64%) resulted in 100% clearance. BCC patient profiles and treatment parameters are presented.*

## Study Background and Objectives

The incidence of skin cancer in the U.S. is rising dramatically. About four out of five of these skin cancers are basal cell carcinoma (BCC). BCC is the most common epithelial tumor, affecting about 800,000 Americans annually (*American Academy of Dermatology Public Resources*, 2003).

The current study was conducted to foster a better understanding of the relationship between BCC and various treatment parameters.

## Methodology

A nationally representative sample of 270 dermatologists extracted detailed medical history and treatment information from the records of 1,080 randomly selected patients with BCC. Up to the last four patients with BCC who were treated by the physician study participant were selected for the study. Study data were transmitted to researchers by fax or mail. Physician study participants personally treated or referred at least four AK patients per month. Statistical adjustments were made to ensure that each patient represented exactly the corresponding number of patients in the universe of total patients.

## Key Findings of Study

### Patient Demographics

- Male - 64%
- Mean age - 66 years
- Caucasian - 99%
- College graduate - 54%
- No health insurance - 1%

### Physical/Health Characteristics

- 53% - “Very good” to “excellent” general health (physician rating)
- 82% had “moderate” to “severe” amount of apparent sun damage (physician observation)
- Most prevalent skin cancer risk factors present:
  - fair skin (73% of patients)
  - chronic sun exposure (72% of patients)

### BCC-Related Medical Histories

- 30% of patients were referred to study dermatologists for evaluation and/or treatment of BCC. Most referrals provided by:
  - family/general practice specialist (48%)
  - general internal medicine specialist (32%)
  - another dermatologist (15%)
- Non BCC-skin problems for which patients had been treated:
  - actinic keratosis (62% of patients)
  - seborrheic keratosis (33% of patients)
  - squamous cell carcinoma (20% of patients)
- 49% of patients had previous episode(s) of BCC
- 78% of patients with previous episodes of BCC were treated by study dermatologists
- Study dermatologists had treated BCC patients for an average of 3.3 years

- Mean duration since last BCC episode – 2.6 years
- Mean number of previous BCCs episodes that were treated by study dermatologist – 4.3
- For 47% of patients, “seriousness” of most recent BCC episode was rated by study dermatologists as “mild”
- Mean number of BCCs present before most recent treatment – 1.9 lesions
- New vs. recurring BCC lesions were as follows:
  - 93% new lesions
  - 7% recurring lesions
- Mean number of BCC lesions for:
  - New lesions – 1.0
  - Recurring lesions– 2.2
- The distribution of BCCs by type of lesion was as follows:
  - Superficial – 54%
  - Nodular – 35%
  - Other – 11%
- The distribution of BCCs by location of lesion was as follows:
  - Face – 47%
  - Trunk (including shoulders) – 26%
  - Arms – 7%
  - Ears – 5%
  - Scalp – 4%

## Treatment of Basal Cell Carcinoma

- 94% of BCC treatments were in a private office
- For 27% of BCC treatments, patient requested specific type of BCC treatment given
  - A specific pharmaceutical treatment was requested – 46% of time
  - A specific non-pharmaceutical treatment was requested – 26% of time
- Type of treatment for most recent BCC episode:
  - Pharmaceutical treatment – 4% of treatments
  - Non-pharmaceutical treatment – 96%
    - \* Excision/biopsy – 38%
    - \* Curettage – 32%
    - \* MOHS surgery - 11%
    - \* Electrodessication – 9%
    - \* Cryotherapy – 5%
- Mean duration of BCC treatment:
  - All treatment types – 5 days
  - Non-pharmaceutical treatments – 4 days
  - Pharmaceutical treatments – 33 days
- Treatment results for all completed treatments:
  - All BCCs cleared – 64%
  - 75%-99% BCCs cleared - 12%
  - 50%-74% BCCs cleared - 1%
  - 25%-49% BCCs cleared - 2%
  - No BCCs cleared - 3%
  - No evidence of malignancy - 14%
  - Other result – 4%

## About the Authors

**Thomas Orsagh, Ph.D.**, is an internationally recognized economist who has made numerous scientific contributions during and after his distinguished academic career. Dr. Orsagh attended the Wharton School and obtained a Ph.D. from the University of Pennsylvania. Dr. Orsagh has served on the faculties of the University of Pennsylvania, Lehigh University, the University of Karlsruhe in Germany, and the University of North Carolina in Chapel Hill. He was a Fulbright Research Scholar, a former editor of the **Southern Economics Journal**, and was a member of a national Presidential Task Force.

**Jack R. Gallagher, Ed.D.** is a behavioral modeling scientist with more than 25 years of experience in medical and systems research. He is a former member of the University of Virginia School of Medicine faculty and directed a five-university research consortium. Dr. Gallagher has published many scientific papers, presented at numerous national and international conferences, and has served on the editorial review boards of two national journals. He also wrote the book **Changing Behavior: How and Why**.