

# National Retrospective Actinic Keratosis (AK) Study: Key Findings - Patients Treated by Dermatologists

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## Abstract

*A nationally representative sample of 293 dermatologists extracted detailed medical history and treatment information from the records of 1,194 randomly selected patients with actinic keratosis (AK). To ensure randomness, the records of up to the four last patients treated by each physician for AK were included in the study. More than three-fourths of AKs were treated with cryotherapy (77%) and about one-sixth (17%) with pharmaceutical treatments. AK treatments were generally effective. About four out of five AK treatments (79%) resulted in 75% -100% of AKs cleared. AK patient profiles and treatment parameters are presented.*

## Background and Objectives of Study

Actinic keratosis (AK) is both potentially very serious and highly prevalent, affecting more than 10 million Americans (*American Academy of Dermatology Public Resources*, 2003). A group of researchers recently concluded that AK is actually an earlier form of potentially deadly squamous cell carcinoma (Cockerell et al., *J American Academy of Dermatology*, 2000).

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

## Methodology

A nationally representative sample of 293 dermatologists extracted detailed medical history and treatment information from the records of 1,194 randomly selected patients with AK. The last four patients with AK 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 treat or refer 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 - 66%
- Mean age - 67 years
- Caucasian - 99%

- College graduate - 55%
- No health insurance - < 1%

### Physical / Health Characteristics

- 56% - "Very good" to "excellent" general health (physician rating)
- 56% had "moderate" amount of apparent sun damage (physician observation)
- Most prevalent skin cancer risk factors present:
  - ◆ Chronic sun exposure (75% of patients)
  - ◆ Fair skin (72% of patients)

### AK-Related Medical Histories

- 29% of patients were referred to study dermatologists for evaluation and/or treatment of AK. Most referrals provided by:
  - ◆ Family/general practice specialist (57%)
  - ◆ General internal medicine specialist (32%)
- Non AK-skin problems for which patient had been treated:
  - ◆ Basal cell carcinoma (40% of patients)
  - ◆ Seborrhea keratosis (28% of patients)
  - ◆ Squamous cell carcinoma (25% of patients)
- < 1% of patients were referred by study dermatologists to another physician for treatment or evaluation
- 74% of patients had previous episode(s) of AK

- 87% of patients with previous episodes of AK were treated by study dermatologists
- Study dermatologists had treated AK patients for an average of 3.7 years
- Mean duration since last AK episode - 1.2 years
- Mean number of previous AKs episodes that were treated by a study dermatologist – 3.6
- For 44% of patients, “seriousness” of most recent AK episode was rated “mild” by study dermatologists
- Mean number of AKs present before most recent treatment – 3.6
- New vs. recurring lesions were as follows:
  - ♦ 76% new lesions
  - ♦ 24% recurring lesions
- The distribution of AKs by number of lesions were as follows:
  - ♦ Discrete (1-3 lesions) – 43%
  - ♦ Discrete (4 or more lesions) – 32%
  - ♦ Confluent – 25%
- The distribution of AKs by other characteristics were as follows:
  - ♦ Hyperkeratotic – 49%
  - ♦ Symptomatic – 48%
  - ♦ Raised – 56%
  - ♦ Flat – 44%
  - ♦ On face – 38%
  - ♦ On scalp – 13%

- AK lesions of largest average size were on:
  - ♦ Arm (5.7 cm<sup>2</sup>)
  - ♦ Trunk (4.9cm<sup>2</sup>)

### Treatment of Actinic Keratosis

- 90% of AK treatments were in a private office
- For 35% of AK treatments, patient requested specific type of AK treatment given
  - ♦ A specific pharmaceutical treatment was requested – 34% of time
  - ♦ A specific non-pharmaceutical treatment was requested – 36% of time
- Type of treatment for most recent AK episode:
  - ♦ Pharmaceutical treatment – 17% of treatments
  - ♦ Non-pharmaceutical treatment – 83%
    - Cryotherapy – 77%
    - Curretage – 4%
- Mean duration of AK treatment:
  - ♦ All treatment types – 22.5 days
  - ♦ Non-pharmaceutical treatments – 15.1 days
  - ♦ Pharmaceutical treatments – 56.3 days
- Treatment results for all completed treatments:
  - ♦ All AKs cleared – 43%
  - ♦ 75%-99% AKs cleared - 36%
  - ♦ 50%-74% AKs cleared - 12%
  - ♦ 25%-49% AKs cleared - 6%
  - ♦ 1%-24% AKs cleared - 1%
  - ♦ No Actinic Keratosis cleared - 2%

## 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 formerly 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**.