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Introduction

• Actinic keratoses (AKs) have malignant transformation potential, so treatment must be effective and prevent against future recurrences.¹
• Cryosurgery has been widely used for treatment of skin lesions such as AKs. It is a short in-office procedure, has low infection risk and minimal wound care.²
• Photodynamic therapy (PDT) is an effective and safe treatment for actinic keratosis.³
• PDT is an ideal option for patients: minimally invasive with no long-term side effects, can be conveniently administered at a physician’s office and yields good cosmetic results.⁴
• Efficacy of PDT is well documented in published studies but anecdotal HCP insights suggest that it may not be utilized at the same rate year-round.¹,³

Objective

• To investigate whether PDT and cryosurgery usage on premalignant skin lesions is affected by season and geographic location in the United States.

Methods

Database of aggregate of closed and open medical claims (CPT & HCPCS) from a broad selection of commercial payers and CMS

7.91 million patient records extracted through CPT codes from 90 states and 4 territories between 2015 – 2022.

Cryosurgery

CPT codes 17050, 17051, 17052

PDT

CPT codes 96057, 96053 and 96054

Stratified using location & meteorologically defined seasons⁴
Winter: Dec 1 – Feb 28; Spring: Mar 1 – May 31, Summer: Jun 1 – Aug 31; Fall: Sep 1 – Nov 30

Demographics

Majority of patients were between ages 65-88 for both PDT & cryosurgery

PDT procedural claims show seasonality, peaking during cooler months and decreasing during the warmer months, while cryosurgery procedural claims remain relatively stable year-round

Conclusions

• PDT procedural claims are affected by season, significantly increasing in the cooler months (Sep-Feb) and decreasing in warmer months (Mar-Aug) (P=0.0000159).
• PDT procedural claims are correlated by geographic location.
• States with larger seasonal changes have a larger change in PDT claims between cooler and warmer months.
• The reasons for seasonal claims could be theorized as:
  - Patients maximizing sunny days and refusing treatments that limit their enjoyment of outdoor activities.
  - Vacation plans, or.
  - Anecdotal labs of getting this treatment during summer months.
• Cryosurgery procedural claims did not have a significant change between seasons.

References:

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