**Client**
HMSA: PQSR 2009

**Measure Title**
FOLLOW-UP AFTER DIAGNOSIS OF ACTINIC KERATOSIS

**Disease State**
Cancer

**Indicator Classification**
Disease Management

**Strength of Recommendation**
C

**Organizations Providing Recommendation**
- American Academy of Dermatology
- British Association of Dermatologists
- European Dermatology Forum
- National Comprehensive Cancer Network
- UK National Institute for Health and Clinical Excellence

**Clinical Intent**
To ensure that members diagnosed with actinic keratosis receive follow up care by a dermatologist within a year.

**Physician Specialties (suggested)**
Refer to PQSR 2009 Clinical Measures by Specialty.

**Background**

**Disease Burden**
- From 1990 to 1999, actinic keratosis (AK) was diagnosed in more than 47 million ambulatory care visits, and occurred in 14% of patients visiting dermatologists.[1]
- The prevalence of AK in the US is estimated to be between 11% and 26% of the population.[2]

**Reason for Indicated Intervention or Treatment**
- Actinic keratoses share genetic tumor markers and identical p53 gene mutations with squamous cell carcinomas (SCC) involving the dermis.[3]
- Studies have shown that 28-60% of SCC arose from a lesion clinically diagnosed as an AK in the past year.[4, 5]
- Furthermore, two retrospective studies of 165 and 1011 patients and one prospective study of 208 patients found that 72-94% of squamous cell carcinomas were either in close proximity, contiguous to, or within the confines of actinic keratoses.[5-7]
- Several studies have reported that dermatologists correctly diagnose significantly more skin lesions, including melanoma and basal cell carcinoma (two types of skin cancer), than do non-dermatologists. Early diagnosis and treatment are crucial when a patient has AK. Left untreated, AK have the potential to progress to SCC, a type of skin cancer that can be deadly. Dermatologists’ training also makes them more comfortable in determining whether or not an AK lesion should be biopsied.[8, 9]
Evidence Supporting Intervention or Treatment

- A systematic review of 12 studies that examined the progression of actinic keratosis to squamous cell carcinoma showed that 1.7% to 14% of patients with AK developed SCC within 5 years. In ten years, the average progression was 10.2% of patients with AK.[10]

- Patients with an organ transplant, other settings of immunosuppression (such as lymphoma, individuals on systemic steroids, HIV, etc.), and individuals with Xeroderma pigmentosum are likely to be at higher risk of nonmelanoma skin cancer. In particular, patients with organ transplants are estimated to have 50 to 100 times the risk of an age- and sex-matched control population. Anecdotal and limited trial data suggest that treatments for actinic keratoses in these high risk groups are less effective than in the general population, because actinic keratoses are more proliferative and hyperkeratotic in this group.[11]

Clinical Recommendations

- The 1995 American Academy of Dermatology’s ‘Guidelines of care for actinic keratosis’ states that long-term follow-up in patients with actinic keratoses may be necessary due to the possible development of new actinic keratoses or actinically related skin cancer. However, no specific recommendations were offered for the frequency and duration of follow-up, which should be based on the individual clinical situation.[12]

- In 2007, the National Comprehensive Cancer Network (NCCN) issued Clinical Practice Guidelines in Oncology. The guidelines indicate that in regard to identification and management of high-risk patients for the treatment of precancers, “Actinic keratosis should be treated aggressively at first development.” Patients at high risk of developing skin cancers are organ transplant recipients, patients with immunosuppression (e.g., lymphoma, drug-induced, HIV, etc.), and Xeroderma pigmentosum.[13]

- In 2006, The UK National Institute for Health and Clinical Excellence recommended that patients in high-risk groups with precancerous lesions including actinic keratosis should seek assessment, follow-up, and treatment with a dermatologist.[14]

- Similarly, the 2007 British Association of Dermatologists Guideline for Management of Actinic Keratosis recommends follow-up only for patients with multiple AK or who are at high-risk for nonmelanoma skin cancers.[11]

- European Dermatology Forum in 2006 recommends follow-up for patients with AK every year to every half-year.[2]

Source

Adapted from Health Benchmarks, Inc.:
- HMSA deleted denominator criteria [B], [C], and [D].
- HMSA modified the continuous enrollment from “12 months prior to the index date through the 12 months after the index date” to “0-12 months prior to the index date and the 1-12 months after the index date”.
- HMSA modified the numerator identification period from “0-12 months after the index date” to “1-12 months after the index date”.

### Denominator

| Denominator | Definition | Continuously enrolled members who had a diagnosis of actinic keratosis during the year prior to the measurement year. |

### Denominator Exclusion

| Denominator Exclusion | Definition | Members who had a diagnosis of actinic keratosis during the 0-12 months prior to the index date. |

### Numerator

| Numerator | Definition | Members who had a follow-up visit with a dermatologist during the 1-12 months after the index date (exclusive of index date). |

### Physician Attribution

| Physician Attribution | Score all physicians (in the selected specialties) who diagnosed the patient with actinic keratosis on the index date. |

### References


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