

Best Practices in Managing AKs

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Consulting (Honoraria)



Learning Objectives

At the conclusion of this learning activity, attendees should be able to:

- 1) Describe currently available treatment regimens for actinic keratoses including some new and emerging regimens
- 2) Be familiar with updated guidelines for the care and management for actinic keratoses
- 3) Understand that there are various special populations with actinic keratoses and be able to formulate a treatment plan with those considerations in mind



Actinic Keratoses (AK): The Basics







Prevalence of Actinic Keratoses (AK)



CI = confidence interval. Rosen T, et al. *J Am Acad Dermatol*. 2013;68(1 Suppl 1):S2-S9. Flohil SC, et al. *J Invest Dermatol*. 2013;133(8):1971-1978.

Pathogenesis Mechanism





UV = ultraviolet. Berman B, et al. J Am Acad Dermatol. 2013;68(1 Suppl 1):S10-S19.

Histological Diagnosis

10

Hypertrophic Actinic

Actinic Keratosis

- * Parakeratosis + Hyperkeratosis
- ★ Adhesion Loss
- 🔆 Epidermal Budding
- * Atypical Keratinization
- ★ T-Cell Infiltration

Images courtesy of Stephen Hammond, MD.





Clinical Diagnosis – Dermoscopy



Facial Non-Pigmented AK – "Strawberry Pattern"

Facial Non-Pigmented AK – Vascular Pattern

Squamous Cell Carcinoma – Vascular Pattern



Images courtesy of Luciano Schiazza, MD.

Clinical Classification

1 Par	1 4 1 1 1	Of L		-	-
Grade 1: Flat, pink maculae without signs of hyperkeratosis and erythema often easier felt than seen. Scale and possible pigmentation may be present		Grade 2: Moderately thick hyperkeratosis on background of erythema that are easily felt and seen carcinoma or SCC)		hyperkeratosis or Il diagnosis a-epidermal	



Clinical Classification

AK-Field Assessment Scale

AK Grade	0	I	II	III	IV	
AK area (% area covered by AK) ^a	0	<10	10-25	>25-50	> 50	
Hyperkeratosis		AK(a) with	arada U ar III	and hunorly or the	alab > E mm	
seventy	 +: 2 TAK(s) with grade II of III and hyperkeratosis[®] 23 in diameter are present in the area -: no hyperkeratosis or grade I hyperkeratosis^b is pres 					
Sun damage	+: moderate or severe sun damage, leading to more frequ					
severity	patient follow-up –: none or mild sun damage					
	Signs considered in the evaluation: erythema, telangiectasia, inflammation, atrophy and pigmentation disorders					

^aIn either face or scalp. ^bAs defined by the Primary Care Dermatology Society (16).



Current Treatment Options and Guidelines



Current Treatment Approaches – Cryosurgery for Single Lesion



Thai KE, et al. Int J Dermatol. 2004;43(9):687-692. Skin M.D. and Beyond. Accessed July 20, 2021. https://www.skinmdandbeyond.com/liquid-nitrogencryotherapy/. Zimmerman EE, et al. Am Fam Physician. 2012;86(12):1118-1124.

Aminolevulinic Acid Photodynamic Therapy (ALA-PDT)





Efficacy

 Complete clearance rate: 71.6% at 12 months post-treatment

Safety

Local skin reactions: 99%

Efficacy

 Complete clearance rate: 86.3% at 12 months post-treatment

Safety

• Local skin reactions: 99.5%



Before

After

Images courtesy of Peraza Dermatology Group, WorldTrade.com, and Clinical Research Center of the Carolinas. FDA. Accessed July 20, 2021. https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/020965s015lbl.pdf; https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/

Adapalene + Aminolevulinic Acid Photodynamic Therapy (ALA-PDT)



Method

•

Pretreatment with Adapalene 0.1% gel twice daily for one week preceding treatment with ALA-PDT

Efficacy

 Complete clearance in 79% after 8 weeks vs 57% without pretreatment



Galitzer BI. Photodynamic Therapy for Actinic Keratoses of the Upper Extremities using10% Aminolevulinic Acid Gel, Red Light, and Adapalene Pretreatment. J Clin Aesthet Dermatol. 2021;14(10):19-224 Image courtesy of Dermatology and Laser Center of Charleston

Methyl Aminolevulinate Photodynamic Therapy (MAL-PDT)



EfficacyComplete

clearance rate: 92.8%

Safety

Local skin reactions: 59.6%



Efficacy

 Complete clearance rate: 89.2%

Safety

 Local skin reactions: 45%

Images courtesy of Galderma Labs and QLD Skin Cancer Clinic. Galderma. Accessed July 20, 2021. https://www.galderma.com/sites/default/files/inline-files/Metvix_%28methyl%20aminolevulinate%29_PM_E_March%2030%2C%202017.pdf.

Calcipotriol + Methyl Aminolevulinate Photodynamic Therapy (MAL-PDT)



Methods

 15 days on scalp preceding PDT

Efficacy

 Mean lesion clearance rates 91% for pretreatment with Calcipotriol vs 80% with standard

Safety

• Similar to standard



Images courtesy of Galderma Labs and QLD Skin Cancer Clinic. Galderma. Accessed July 20, 2021.

https://www.galderma.com/sites/default/files/inline-files/Metvix_%28methyl%20aminolevulinate%29_PM_E_March%2030%2C%202017.pdf.

Torezan L, Grinblat B, Haedersdal M, Festa-Neto C, Szeimies RM. A 12-month follow-up split-scalp study comparing calcipotriol-assisted MAL-PDT with conventional MAL-PDT for the treatment of actinic keratosis: a randomized controlled trial. Eur J Dermatol.2021;31(5):638-644. doi:10.1684/ejd.2021.4137

5-Fluorouracil – Topical



Micali G, et al. J Am Acad Dermatol. 2014;70(6):965.e1-12; quiz 977-978. Eisen DB...Schlesinger T, et al. J Am Acad Dermatol. 2021 [Epub ahead of print].

Efficacy

•

5-Fluorouracil "Chemowraps"



Before

After



Images courtesy of C. William Hanke, MD, MPH. Tallon B, et al. Australas J Dermatol. 2013;54(4):313-316.

Imiquimod – Topical

IMIQUIMOD +++ TLR-7/8 Innate immunity TNF-α, IFN-γ, (NK cells) IFN-α, IL-6, IL-1a, APC Antitumoral IL-1b, IL-8, IL-12, effects GM-CSF, GC-SF Acquired immunity (Th1, cytotoxic T cells)

Efficacy (3.75% imiquimod)

- 80% partial clearance
- 53.7% complete clearance

Common adverse events

• Local skin reactions: 54.9%

Micali G, et al. J Am Acad Dermatol. 2014;70(6):965.e1-12; quiz 977-978. Swanson N, et al. J Am Acad Dermatol. 2010;62(4):582-590.

Diclofenac – Topical

Efficacy

• 29% complete clearance

Common adverse events

• Local skin reactions: 29%

Treatment regimen

• 60-90 day course





NSAIDs = non-steroidal anti-inflammatory drugs.

Thomas GJ, et al. *Dermatol Ther*. 2019;32(3):e12800. Schjerning AM, et al. *Nat Rev Cardiol*. 2020;17(9):574-584. McEwan LE, et al. *Australas J Dermatol*. 1997;38(4):187-189.



Randomized Trial Assessing 4 Treatment Approaches

ORIGINAL ARTICLE

Randomized Trial of Four Treatment Approaches for Actinic Keratosis

Maud H.E. Jansen, M.D., Janneke P.H.M. Kessels, M.D., Ph.D., Patty J. Nelemans, M.D., Ph.D., Nina Kouloubis, M.D., Aimee H.M.M. Arits, M.D., Ph.D., Han P.A. van Pelt, M.D., Ph.D., Patricia J.F. Quaedvlieg, M.D., Ph.D., Brigitte A.B. Essers, Ph.D., Peter M. Steijlen, M.D., Ph.D., Nicole W.J. Kelleners-Smeets, M.D., Ph.D., and Klara Mosterd, M.D., Ph.D.

- Inclusion criteria (N=624): 5+ AKs in 1 continuous area on head or neck
- Primary measure: Partial clearance rate at 3 and 12 months post-treatment
- Treatment groups
 - 1. 5% fluorouracil cream
 - 2.5% imiquimod
 - 3. MAL-PDT
 - 4. 0.0015% ingenol mebutate

*Partial Clearance: ≥75% reduction of AK lesion



Jansen MHE, et al. N Engl J Med. 2019;380(10):935-946.

Randomized Trial Assessing 4 Treatment Approaches

Four Treatment Approaches for Actinic Keratosis





Jansen MHE, et al. N Engl J Med. 2019;380(10):935-946.

Current Guidelines: United States

	<u>Cryo</u>	<u>5-FU</u>	<u>IMQ</u>	<u>DHA</u>	<u>PDT (ALA)</u>	<u>Tirbanibulin</u>
US Guideline	Strong (Good Clinical Practice)	Strong	Strong	Conditional	Conditional	*Strong
Indication	Single lesion	Field lesions	Field lesions	Field lesions	Field lesions	Field lesions

* Most recent focused update to US Guidelines

5-FU = 5-fluorouracil; IMQ = imiquimod; DHA = diclofenac; PDT = ALA

Eisen DB, Asgari MM, Bennett DD, Connolly SM, Dellavalle RP, Freeman EE, Goldenberg G, Leffell DJ, Peschin S, Sligh JE, Wu PA, Frazer-Green L, Malik S, Schlesinger TE. Guidelines of care for the management of actinic keratosis. J Am Acad Dermatol. 2021 Ot; 85(4):e209-e233. doi: 10.1016/j.jaad.2021.02.082. Epub 2021 Apr 2. PMID: 33820677. Eisen DB, Dellavalle RP, Frazer-Green L, Schlesinger TE, Shive M, Wu PA. F

Clinical Cases



Combination Therapy

Tx Combination	5-Fluorouracil + Cryosurgery vs Cryosurgery	3.75% Imiquimod + Cryosurgery vs Cryosurgery	3% Diclofenac Sodium + Cryosurgery vs Cryosurgery	5% Imiquimod + ALA-PDT vs ALA-PDT
Efficacy	1	$\uparrow\uparrow$	1	Ţ
Safety		\downarrow	$\downarrow\downarrow$	

Key: $\uparrow\uparrow$ or $\downarrow\downarrow$ = large increase or decrease; \uparrow or \downarrow = small increase or decrease; -- = no difference.

Eisen DB, Asgari MM, Bennett DD, Connolly SM, Dellavalle RP, Freeman EE, Goldenberg G, Leffell DJ, Peschin S, Sligh JE, Wu PA, Frazer-Green L, Malik S, Schlesinger TE. Guidelines of care for the management of actinic keratosis. J Am Acad Dermatol. 2021 Oct;85(4):e209-e233. doi: 10.1016/j.jaad.2021.02.082. Epub 2021 Apr 2. PMID: 33820677.

Clinical Scenario 1 – Few AKs

Scalp/Face – Single AK



Recommended Treatment:

Cryosurgery

Extremities – Single AK



Recommended Treatment:

Cryosurgery



Images courtesy of Dermatology & Laser Center of Charleston.

Clinical Scenario 2 – Multiple AKs

Scalp/Face – Field Cancerization



Recommended Treatment:

- 1st Cryosurgery for higher grade AKs
- 2nd Topical treatment with 5-FU vs 5-FU/Calcipotriene vs Imiquimod vs Tirbanibulin or ALA-PDT

Extremities – Field Cancerization



Recommended Treatment:

- 1st Cryosurgery for higher grade AKs
- 2nd Topical treatment with 5-FU vs 5-FU/Calcipotriene vs Imiquimod or ALA-PDT

Images courtesy of Dermatology & Laser Center of Charleston.

Clinical Scenario 3 – Hx of iSCC

Scalp/Face



Recommended treatment:

- Increase potency of topical treatment with 5-FU 5% cream vs Imiquimod 5% cream
- ALA-PDT

iSCC = invasive SCC. Images courtesy of Dermatology & Laser Center of Charleston. Extremities



Recommended treatment:

- Increase potency of topical treatment with 5-FU 5% cream vs Imiquimod 5% cream
- ALA-PDT



Clinical Scenario 4 – Recurring AKs

Scalp/Face



Recommended treatment:

- 1st Cryosurgery for higher grade AKs
- 2nd topical treatment with 5-FU 5% cream vs Imiquimod 5% cream vs Tirbanibulin

Extremities



Recommended treatment:

- 1st Cryosurgery for higher grade AKs
- 2nd topical treatment with 5-FU 5% cream vs Imiquimod 5% cream



Images courtesy of Dermatology & Laser Center of Charleston.

Clinical Scenario 5 – Special Populations

Immunocompromised



Recommended treatment:

- Increase freeze time of cryosurgery
- **Insufficient data to make
 recommendation suggest close
 observation and frequent follow up

Images courtesy of Dermatology & Laser Center of Charleston and UpToDate.

Hyperkeratotic, Grade III Lesions



Recommended treatment:

- Increase freeze time of cryosurgery
- Surgical excision



Emerging Treatment Options and Future Directions



1% Tirbanibulin Ointment

Tirbanibulin: Inhibition of Tubulin Polymerization





Image courtesy of Almirall, USA. Blauvelt A...Schlesinger T, et al. N Engl J Med. 2021;384(6):512-520.

1% Tirbanibulin Ointment: Phase III Trial

The NEW ENGLAND JOURNAL of MEDICINE





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Image courtesy of New England Journal of Medicine. Blauvelt A...Schlesinger T, et al. N Engl J Med. 2021;384(6):512-520.

INVESTIGATOR GLOBAL ASSESSMENT (IGA) OF ACTINIC KERATOSIS (AK) AMONG PATIENTS ADMINISTERED TIRBANIBULIN IN REAL-WORLD COMMUNITY PRACTICES ACROSS THE U.S., AND CLINICIAN LIKELIHOOD TO CONSIDER TIRBANIBULIN AGAIN FOR FUTURE AK TREATMENTS (PROAK STUDY)

Todd Schlesinger, MD¹; Leon Kircik, MD²; April Armstrong, MD³; Brian Berman, MD, PhD⁴; Neal Bhatia, MD⁵; James Del Rosso, MD⁶; Mark Lebwohl, MD²; Vishal A. Patel, MD⁷; Darrell Rigel, MD, MS²; Siva Narayanan, PhD⁸; Volker Koscielny, MD⁹ Ismail Kasujee PhD⁹

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IMPACT OF ACTINIC KERATOSIS (AK), AS MEASURED BY PATIENT-REPORTED AK SYMPTOMS, AND IMPACT ON EMOTIONS AND FUNCTIONING (USING SKINDEX-16) AMONG PATIENTS WITH AK ADMINISTERED TIRBANIBULIN IN REAL-WORLD COMMUNITY PRACTICES ACROSS THE U.S. (PROAK STUDY)

Leon Kircik, MD¹; Todd Schlesinger, MD²; April Armstrong, MD³; Brian Berman, MD, PhD⁴; Neal Bhatia, MD⁵; James Del Rosso, MD⁶; Mark Lebwohl, MD¹; Vishal A. Patel, MD⁷; Darrell Rigel, MD, MS¹; Siva Narayanan, PhD⁸; Volker Koscielny, MD⁹ Ismail Kasujee PhD⁹

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N= 290. CFB: Change from baseline to Week-12. *P < 0.0001

5-FU + Calcipotriol



RUE = right upper extremity; LUE = left upper extremity.

Image courtesy of *Nature*. Cunningham TJ, et al. *J Clin Invest*. 2017; 127(1):106-116.

Before

During

After

VDA 1102 Topical Ointment: Phase II Trials



Intervention	Application	Results – Lesion reduction %		
10% VDA-1102	Applied twice daily for 12 weeks	36%		
20% VDA-1102	Applied once daily for 12 weeks	37%		

Common adverse events

 Local skin reactions: 24%

https://beta.clinicaltrials.gov/study/NCT03538951?tab=results Image courtesy of http://vidacpharma.com/images/press-releases/Publications/Fall_Dermatology_Conference_-_Poster_Oct_2018.pdf

Resiquimod: Phase II Trial



Efficacy

• 56-85% complete clearance

Safety:

 0.03% gel showed greatest efficacy; however, 0.01% concentration favored due to 59% experiencing adverse events
 MOA:

 \uparrow IL-6, TNFα, IFNγ

ITT – intention to treat □ deviated from protocol

PP - per-protocol population

Stockfleth E, Hofbauer GFL, Reinhold U, et al. Topical resiquimod dosing regimens in patients with multiple actinic keratoses: a multicentre, partly placebocontrolled, double-blind clinical trial. Br J Dermatol. 2019;180(2):297-305. doi:10.1111/bjd.17124

Potassium Hydroxide (KOH)

KOH Monotherapy

Efficacy (5% KOH Solution)

- 49% partial clearance
- 55% complete clearance

Common adverse events

Adverse events: 47%; however, over 80% of these were mild local skin reactions

KO

Baseline

After one month





After one year

	Treatment	After 1 Month	After 3 Months
Clinical Response	KOH5% Solution	81%	83%
	5-Fluorouracil Cream	58%	70%
p Value		0.007	0.2
Dermoscopic response	KOH5% Solution	64.7%	76%
	5-Fluorouracil Cream	46%	59%
p Value		0.043	0.2



KOH vs 5-FU cream

CO₂ Ablative Resurfacing

CO2 Ablative Resurfacing

Efficacy – limited for monotherapy

CO2 Ablative Resurfacing + PDT

- Superior complete clearance rates and lower AK recurrence in organ transplant recipients
- <u>Efficacy</u> complete response 73% of AFXL-PDT vs 31% AFXL group
 - Grade 1 AKs 80% vs 37%
 - Grade 2 AKs 53% vs 7%

Barriers of CO2 Ablative Resurfacing

Cost barriers, insurance coverage

Miller MB, Padilla A. CO2 laser ablative fractional resurfacing photodynamic therapy for actinic keratosis and nonmelanoma skin cancer: a randomized split-side study. Cutis. 2020 May;105(5):251-254. PMID: 32603389.

Dong J, Goldenberg G. Energy-based devices for actinic keratosis field therapy. Cutis. 2018 May;101(5):355-360. PMID: 29894524.

Field Therapy for Actinic Keratoses: Efficacy

Field Therapy for Actinic Keratosis: A Structured Review of the Literature on Efficacy, Cost, and Adherence

Nathaniel Lampley III,* Rachel Rigo, MD,† Todd Schlesinger, MD,‡ and Anthony M. Rossi, MD†§

TABLE 1. Comparison of Short-Term Efficacy for Field-Directed Treatments of AK				
Therapy	% Patients With Complete Clearance (No. of Studies)			
5-FU 0.5% cream	$32-58 \ (n=4)^{29-32}$			
5-FU 4% cream	54–80 $(n = 2)^{38}$			
5-FU 5% cream	$58-75 (n = 2)^{38}$			
Imiquimod 5% cream	$24-64 \ (n=4)^{37,39-41}$			
Imiquimod 3.75% cream	$36 (n = 1)^{34}$			
Diclofenac sodium 3% gel	$19-41 \ (n=3)^{35-37,43}$			
BF-200 ALA 10% gel	$62-91 \ (n=2)^{42,44}$			
Tirbanibulin 1% ointment	$44-54 \ (n=2)^{33}$			

Lampley III, N., Rigo, R, Schlesinger, T., & Rossi, A. M. (2022). Review of Efficacy, Cost, and Adherence of Field Therapies for Actinic Keratosis. SKIN The Journal of Cutaneous Medicine, 6(6), s91. https://doi.org/10.25251/skin.6.supp.91

Field Therapy for Actinic Keratoses: Adherence

Field Therapy for Actinic Keratosis: A Structured Review of the Literature on Efficacy, Cost, and Adherence

Nathaniel Lampley III,* Rachel Rigo, MD,† Todd Schlesinger, MD,‡ and Anthony M. Rossi, MD†§

TABLE 3. Adherence to Field Therapy for AK				
Therapy	% Patients Completing Entire Regimen (No. of Studies)			
5-FU 5%	$89 (n = 1)^{21}$			
Imiquimod 5%	91 $(n = 1)^{41}$			
Diclofenac 3%	70 $(n = 1)^{46}$			
MAL-PDT	97 $(n = 1)^{21}$			



Lampley III, N., Rigo, R, Schlesinger, T., & Rossi, A. M.(2022). Review of Efficacy, Cost, and Adherence of Field Therapies for Actinic Keratosis. SKIN The Journal of Cutaneous Medicine, 6(6), s91. https://doi.org/10.25251/skin.6.supp.91

Future Directions

What are we doing to resolve AK treatment challenges?

Study Aims	Examples
Continued Efficacy and Safety Evidence	ALA-PDT for facial AKs
New Protocols	Variations in incubation time for PDT
New Diagnostics	Advanced bedside imaging, Electrical impedance spectroscopy
New Monotherapy	DFD-07 cream, SR-T100 gel, Oleogel-S10, Nicotinamide
New Combination Therapies	Vitamin D + PDT 5-FU + emollient cream
Special Populations	Immunotherapy before or after organ transplantation and skin cancer prevention
Gaps in Care	Large scale treatment area, Reduced local skin reactions, Improved clearance rates, treatment for immunocompromised patients

Clinical trials reported by ClinicalTrials.gov.

Emerging Treatments In Phase II Clinical Trials



Mechanism of action:

- Up-regulation of Fas and TNFR1
- Up-regulation of FADD/TRADD in the Fas-ligand and TNF-a signaling pathway



DFD-07	 Mechanism of action: Celecoxib topical NSAID inhibits COX-2 				
cream	COLECOXIB [-] COX-2 [-] SKIN TUMOR GENESIS				

Flavia Lozzi, Caterina Lanna, Mauro Mazzeo, Virginia Garofalo, Vincenzo Palumbo, Sara Mazzilli, Laura Diluvio, Alessandro Terrinoni, Luca Bianchi & Elena Campione (2019) Investigational drugs currently in phase II clinical trials for actinic keratosis, Expert Opinion on Investigational Drugs, 28:7, 629-642, DOI: 10.1080/13543784.2019.1636030

Future Directions: Staying Accountable What are we doing to resolve AK treatment challenges?





Treatment Development and Market Outcomes

Global AK treatment industry

- $2018 \rightarrow \$1.12$ billion
- $2026 \rightarrow \$1.56$ billion
- 4.2% growth rate

Topical market will continue to dominate

- $5-FU \rightarrow \sim 40\%$ of total market share (2018)
- Imiquimod → fastest growth rate (5.2%) during 2019-2026

European market will continue to rise

• Expected to be 2nd largest during forecasted period → increasing reported cases and rising medical tourism

U.S. actinic keratosis treatment market size, by therapy, 2014 - 2026, (USD Billion)



Source: www.grandviewresearch.com



Image courtesy of Grand View Research.

Field Therapy for Actinic Keratoses: Cost

Field Therapy for Actinic Keratosis: A Structured Review of the Literature on Efficacy, Cost, and Adherence

Nathaniel Lampley III,* Rachel Rigo, MD,† Todd Schlesinger, MD,‡ and Anthony M. Rossi, MD†§

TABLE 2. Estimated Cost of Field Therapy for AK								
Product	Regimen	Unit	Units/ Regimen	Cost/ Unit (USD)	Cost/ Regimen (USD)	CPT Cost (USD)	Total Cost (USD)	Effective Cost (Total Cost/CR, USD)
5-FU 5% cream	BID x 4 wks	1 tube (40 g)	1	384.94*	384.94	169.93	554.93	739.90–956.77
lmiquimod 5% cream	Twice weekly x 16 wks	1 carton (12 packets, 25 g)	3	176.60	529.80	169.93	699.93	1,093.64–2,916.375
5-FU 4% cream	Daily x 4 wks	1 tube (40 g)	1	262.50	262.50	169.93	432.93	541.16-801.72
ALA 10% gel	1–2 treatments, 3 months apart	1 tube (2 g)	1	299	299	240.76	539.76	593.14–870.58
Tirbanibulin 1% ointment	Daily x 5 d	1 carton (5 single use packets)	1	990	990	169.93	1,159.93	2,148.02–2,636.20
lmiquimod 3.75% cream	Daily x (2) 2-wk cycles (2 wks off)	1 carton (28 single- use packets)	1	1,040.93	1,040.93	169.93	1,210.86	3,363.50
Diclofenac sodium 3% gel	BID x 12 wk	1 tube (100 g)	1	943.57	943.57	169.93	1,113.50	2,715.85–5,860.52
5-FU 0.5% cream	Daily x 4 wk	1 tube (30 g)	1	1,332.08	1,332.08	169.93	1,502.91	2,589.67–4,693.78
* Average Wholesal	e Price (AWP) provided,	because no WAC price	is available in		Redbook.	+		

Lampley III, N., Schlesinger, I., Rigo, R., & Rossi, A. M. (2022). Review of Efficacy, Cost, and Adherence of Field Therapies for Actinic Keratosis. SKIN The Journal of Cutaneous Medicine, 6(6), s91. https://doi.org/10.25251/skin.6.supp.91

Conclusions

The problems

• AK prevalence is on the rise

The challenges

- No universal classification method
- Lack of evidence currently available treatment options
- Incomplete treatment guidelines case-specific recommendations

The solutions

- Clinical trials continued research on current methods, developing new protocols and treatment methods
- Standardized outcome reporting
- Treatment recommendations with real-world approach







THANK YOU!

Q&A Session

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