

# INPLASY

INPLASY202390086

doi: 10.37766/inplasy2023.9.0086

Received: 26 September 2023

Published: 26 September 2023

## Corresponding author:

Aditya Gupta

agupta@mediproberesearch.com

## Author Affiliation:

Mediprobe Research Inc.

## A comparison of therapeutic agents' short-term effects on actinic keratoses of the face and scalp: a protocol for a network meta-analysis study

Gupta, AK<sup>1</sup>; Bamimore, MA<sup>2</sup>; Wang, T<sup>3</sup>; Ravi, SP<sup>4</sup>; Talukder, M<sup>5</sup>; Haas-Neil, S<sup>6</sup>; Martin, G<sup>7</sup>; Piguet, V<sup>8</sup>.

## ADMINISTRATIVE INFORMATION

**Support** - None.

**Review Stage at time of this submission** - Data extraction.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202390086

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 September 2023 and was last updated on 29 April 2024.

## INTRODUCTION

**Review question / Objective** The objective of the proposed study is to determine the relative effectiveness of existing therapies for facial and scalp actinic keratoses.

**Rationale** Numerous therapies exist for actinic keratosis, a pre-cancerous condition that can turn into malignancy if untreated. However, some of these therapies' relative effectiveness have not been determined in head-to-head trials. Hence, the proposed study attempts to determine such treatments' comparative effectiveness through network meta-analyses.

**Condition being studied** Actinic keratosis.

## METHODS

**Search strategy** Evidence for quantitative syntheses will be obtained by: (1) systematically searching the peer-reviewed literature through

electronic databases (including PubMed), and (2) reference mining.

**Participant or population** Persons diagnosed with actinic keratoses.

**Intervention** Therapies (of any administrative route) used for treating actinic keratoses.

**Comparator** Vehicle, placebo or any other active comparator (i.e., any other therapy).

**Study designs to be included** Evidence for quantitative analyses will include data from non-randomized and randomized trials.

**Eligibility criteria** Data from studies published in a non-English language will be excluded.

**Information sources** Data for quantitative analyses will be obtained from relevant journal articles identified from electronic databases.

---

**Main outcome(s)** Our primary outcomes of interest are: (1) proportion of patients who achieved complete clearance within 12 weeks of therapy, (2) proportion of patients who achieved partial clearance within 12 weeks of therapy, and (3) arm-level clearance rate of lesions within 12 weeks of therapy.

**Additional outcome(s)** Our secondary outcome of interest will pertain to discontinuation of therapy due to any adverse event.

**Quality assessment / Risk of bias analysis** Evidence quality will be evaluated using the CINeMA tool (Confidence in Network Meta-Analysis).

**Strategy of data synthesis** The analyses plan for the proposed study will include an 'agent-level' (i.e., main) analyses where agents with varying dosages will be collapsed into one node.

**Subgroup analysis** None.

**Sensitivity analysis** The results from main analyses will determine how the sensitivity analyses should proceed.

**Language restriction** Evidence in non-English language will be excluded.

**Country(ies) involved** Canada.

**Keywords** actinic keratosis; network meta-analysis; scalp; face; efficacy.

#### **Contributions of each author**

Author 1 - Aditya K. Gupta.

Author 2 - Mary A. Bamimore.

Author 3 - Tong Wang.

Author 4 - Shruthi Polla Ravi.

Author 5 - Mesbah Talukder.

Author 6 - Sandor Haas-Neil.

Author 7 - George Martin.

Author 8 - Vincent Piguet.

#### **Affiliation**

Aditya K. Gupta - (1) Division of Dermatology, Department of Medicine, University of Toronto School of Medicine, Toronto, Ontario, Canada; (2) Mediprobe Research Inc., London, Ontario, Canada.

Mary A. Bamimore - Mediprobe Research Inc., London, Ontario, Canada.

Tong Wang - Mediprobe Research Inc., London, Ontario, Canada.

Shruthi Polla Ravi - Mediprobe Research Inc., London, Ontario, Canada.

Mesbah Talukder - (1) Mediprobe Research Inc., London, Ontario, Canada; (2) School of Pharmacy, BRAC University, Dhaka, Bangladesh.

Sandor Haas-Neil - Mediprobe Research Inc., London, Ontario, Canada.

George Martin - George Martin Dermatology Associates, Kihei, Hawaii, USA.

Vincent Piguet - (1) Division of Dermatology, Department of Medicine, University of Toronto School of Medicine, Toronto, Ontario, Canada; (5) Division of Dermatology, Women's College Hospital, Toronto, Ontario, Canada.