



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Teledermatology to support the management of primary care referrals: protocol for a health technology assessment

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About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is an independent statutory authority established to promote safety and quality in the provision of health and social care services for the benefit of the health and welfare of the public.

HIQA's mandate to date extends across a wide range of public, private and voluntary sector services. Reporting to the Minister for Health and engaging with the Minister for Children, Equality, Disability, Integration and Youth, HIQA has responsibility for the following:

- **Setting standards for health and social care services** — Developing person-centred standards and guidance, based on evidence and international best practice, for health and social care services in Ireland.
- **Regulating social care services** — The Chief Inspector within HIQA is responsible for registering and inspecting residential services for older people and people with a disability, and children's special care units.
- **Regulating health services** — Regulating medical exposure to ionising radiation.
- **Monitoring services** — Monitoring the safety and quality of permanent international protection accommodation service centres, health services and children's social services against the national standards. Where necessary, HIQA investigates serious concerns about the health and welfare of people who use health services and children's social services.
- **Health technology assessment** — Evaluating the clinical and cost-effectiveness of health programmes, policies, medicines, medical equipment, diagnostic and surgical techniques, health promotion and protection activities, and providing advice to enable the best use of resources and the best outcomes for people who use our health service.
- **Health information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information on the delivery and performance of Ireland's health and social care services.
- **National Care Experience Programme** — Carrying out national service-user experience surveys across a range of health services, in conjunction with the Department of Health and the HSE.

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1 Introduction

Demand for outpatient dermatology services has increased in recent years, driven largely by Ireland's ageing population, the rising incidence of skin cancer, and improvements in the treatments and technologies available for the management of chronic skin conditions. The increased demand has contributed to long waiting lists for access to dermatology services.⁽¹⁾ In light of these lengthy waiting lists, strategies to improve access to specialist services are needed.

According to the Health Service Executive (HSE) Model of Care for Dermatology, the use of technology initiatives, including teledermatology, could be used to improve access to care, pending the outcome of further assessment.⁽¹⁾ Teledermatology involves the use of static images or live video-conferencing technology to triage, diagnose or monitor skin conditions without the patient being physically present.⁽²⁾

In this HTA, teledermatology-supported referral management involves a dermatologist using images, videos, or live interactive video, in addition to the clinical information, provided as part of the referral from primary care to:

- Make an initial management decision, which may include:
 - referral to in-person consultation
 - redirecting to other specialities
 - direct booking for a procedure
 - provision of advice and guidance to the GP to support continued management of the patient in primary care.
- Prioritise patients identified to require in-person consultation or a procedure.

The HSE Model of Care for Dermatology has an aim to increase capacity for dermatologists to engage in effective triage of referrals to secondary and or tertiary care. Teledermatology-supported referral management has the potential to improve the timely delivery of appropriate dermatology care and to manage demand for specialist dermatology services.⁽¹⁾ Use of teledermatology may be associated with advantages in terms of access to healthcare and efficient use of specialist dermatology resources. However, it is important that the potential impact of such services on the quality of care is also considered.

The HSE requested HIQA to undertake a health technology assessment (HTA) to establish the clinical effectiveness and economic implications of using teledermatology for adult and paediatric patients referred by a GP to a consultant dermatologist. The HTA will provide evidence-based advice to inform decision-making by the Minister for Health and the HSE.

This protocol presents the proposed methodology for assessing the provision of teledermatology to support the management of referrals from primary care to specialist dermatology services. The assessment will be conducted in line with the HIQA quality assurance framework for HTA.

2 Aims and objectives

The aim of this HTA is to evaluate the use of teledermatology to support the management of patient referrals from primary care to secondary care dermatology services.

With regards to consultant-led dermatology services in secondary care, the objectives for this HTA are to:

- describe the current referral pathway in Ireland including the use of teledermatology in relation to referrals from primary care
- describe the current and projected demand
- review the current evidence of the safety, clinical effectiveness, impact on waiting lists and health service utilisation, and cost effectiveness of using teledermatology for referrals
- assess the budget impact of implementing teledermatology to support management of referrals from primary care
- consider any potential organisational and resource implications of providing teledermatology to support the management of referrals from primary care
- consider any patient and social implications that providing teledermatology to support the management of referrals from primary care may have for patients, the general public or the healthcare system in Ireland
- consider any ethical and/or legal implications of providing teledermatology to support the management of referrals from primary care
- based on the evidence in this assessment, provide advice to the Minister for Health and the HSE to inform a decision on whether to provide teledermatology to support the management of referrals from primary care.

3 Establishment of the Expert Advisory Group

An appropriately represented Expert Advisory Group (EAG) has being convened as a source of expertise to inform interpretation of the evidence and development of the

advice to the Minister for Health. This group comprises nominees from a range of stakeholder organisations, including patient representatives, healthcare providers and managers, as well as clinical and methodological experts.

The terms of reference of the Expert Advisory Group (EAG) are to:

- Contribute to the provision of high-quality and considered advice by HIQA to the Minister for Health and the HSE.
- Contribute fully to the work, debate and decision-making processes of the group by providing expert guidance, as appropriate.
- Be prepared to provide expert advice on relevant issues outside of group meetings, as requested.
- Provide advice to HIQA regarding the scope of the analysis.
- Support the Evaluation Team led by HIQA during the assessment process by providing expert opinion and access to pertinent data, as appropriate.
- Review the project plan outline and advise on priorities, as required.
- Review the draft report from the Evaluation Team and recommend amendments, as appropriate.
- Contribute to HIQA's development of its approach to HTA by participating in an evaluation of the process on the conclusion of the assessment.

4 Description of the technology

This technology represents a system change, involving the introduction of a tele dermatology service to support the management of referrals from primary care to secondary care dermatology services. A description of the options currently available to access secondary dermatology services in the publicly-funded healthcare system in Ireland will be provided. It will consider referrals for all dermatology conditions, including patients with suspected melanoma (skin cancer).

A description of the proposed tele dermatology service and the system change this technology represents will also be provided, including a description of potential synchronous (live-interactive) and asynchronous (store and forward images) models. Finally, for context, international practice with respect to the services and systems in place for tele dermatology to support the management of primary care referrals will be described. The following countries will be considered for the international review: European countries (Austria, Belgium, Denmark, England, Estonia, Finland, France, Germany, Iceland, Italy, Luxembourg, Netherlands, Northern Ireland, Norway,

Portugal, Scotland, Spain, Sweden, Switzerland, and Wales) in addition to Australia, Canada and New Zealand.

5 Epidemiology and burden of disease

A comprehensive description of the current and projected demand and burden on existing pathways for secondary dermatology services, for both adults and children, within the publicly-funded healthcare system in Ireland will be provided. The burden of disease for dermatology patients on waiting lists will also be considered. This section will be informed by a review of national and international literature and data.

6 Clinical efficacy, effectiveness, service utilisation, and safety

Up-to-date evidence on the safety and effectiveness of teledermatology to support the management of referrals from primary care will be central to decision-making regarding the incorporation of this service within dermatology services in Ireland.

This chapter will focus on teledermatology to support the management of referrals from primary care and will exclude studies that limit the use of teledermatology to support the ongoing treatment or management of skin conditions within secondary care services. Accordingly, a research question has been formulated to establish the clinical efficacy, effectiveness and safety of teledermatology:

What is the clinical efficacy, effectiveness, impact on service utilisation, and safety of teledermatology to support the management of primary care referrals compared with traditional face-to-face dermatology consultations?

A systematic review will be conducted. The reporting of the review will adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria and national guidelines.^(3, 4)

6.1 Inclusion criteria

The eligibility criteria for inclusion in the review were formulated according to the Population, Intervention, Comparator, Outcomes and Study Design (PICOS) framework. Table 1 outlines the eligibility criteria for the review of clinical efficacy, effectiveness and safety. The review will focus on comparative studies only.

Table 1 Population, Intervention, Comparator, Outcomes and Study Design (PICOS) eligibility criteria

Item	Inclusion
Population	Adults and children with skin conditions being referred to a consultant dermatologist.
Intervention	<p>Teledermatology for referrals from primary care (synchronous and asynchronous) with or without dermatoscopy.</p> <p>Exclude:</p> <ul style="list-style-type: none"> ▪ teledermatology used in the ongoing treatment and management of patients ▪ teledermatology with ultrasound.
Comparators	Usual care or another form of teledermatology.
Outcomes	<p>Health service utilisation, including:</p> <ul style="list-style-type: none"> ▪ waiting list reduction ▪ wait time reduction ▪ referral rates ▪ patient and provider satisfaction. <p>Diagnostic accuracy</p> <ul style="list-style-type: none"> ▪ diagnostic concordance/agreement ▪ referral accuracy (patient management decisions). <p>Clinical outcomes, including:</p> <ul style="list-style-type: none"> ▪ clinical course of disease ▪ survival. <p>Quality of life, including:</p> <ul style="list-style-type: none"> ▪ SF-36 ▪ EQ-5D. <p>Safety, including:</p> <ul style="list-style-type: none"> ▪ missed or delayed diagnoses ▪ incorrect diagnoses ▪ death.
Study design	Randomised controlled trials, comparative cohort studies.

Item	Inclusion
	Exclude: conference abstracts, systematic reviews, single-arm trials.
Location	OECD countries.

6.2 Search strategy and information sources

A comprehensive search will be performed in the following databases: Embase (Elsevier), Medline Complete (Ebscohost), CINAHL Complete (EBSCOhost), PsycInfo (EBSCOhost), INAHTA database, and the Cochrane Database of Systematic Reviews.

The search strategy will be developed by a librarian and peer reviewed by a second librarian. Searches will be limited to the period from January 2004 to June 2024. Studies pre-2004 are not considered applicable due to advances in the technology. A search for ongoing clinical trials relevant to the research question will also be conducted in the following clinical trial registries: CENTRAL and clinicaltrials.gov. A draft search strategy is provided in the Appendix.

6.3 Study selection

Titles and abstracts of articles retrieved will be screened independently by two reviewers. The full text of potentially eligible articles will be retrieved and independently assessed for eligibility by two reviewers according to the specified criteria (outlined in section 6.1). A PRISMA flow diagram, outlining the study selection process, will be completed. Disagreements will be resolved through discussion, or if necessary, through involvement of a third reviewer.

6.4 Data extraction

Data extraction will be conducted independently by two reviewers using a standardised, pre-piloted electronic data extraction form. Disagreements in data extraction will be resolved through discussion, or if necessary, a third reviewer.

6.5 Quality assessment

Two reviewers will independently assess the quality of included studies. Risk of bias will be assessed using the Cochrane revised risk of bias tool for RCTs (RoB2).⁽⁵⁾ The Risk of Bias in Non-randomised Studies of Interventions (ROBINS-I) tool will be used to assess the quality of non-randomised studies.⁽⁶⁾ Disagreements will be resolved through discussion, or if necessary, a third reviewer.

6.6 Data synthesis and analysis

Where feasible meta-analysis of outcomes will be undertaken. Where meta-analysis is not considered appropriate, for example in the case of considerable clinical heterogeneity or a small number of events, outcomes will be synthesised narratively. Meta-analysis will be undertaken in accordance with Cochrane methodology.⁽⁷⁾ Data will be presented separately for synchronous and asynchronous teledermatology. Where possible, data relating to adult and paediatric populations will be analysed and presented separately.

7 Review of cost effectiveness

Economic evaluations of teledermatology pathways vary in terms of the included costs (for example, GP visits, dermatology consultations, resource use, the technology used), outcomes (for example, impact on waiting times, impact on waiting lists), and perspectives considered (for example, payer or societal perspectives). A systematic review of the literature will be conducted to summarise and evaluate the current economic evidence. This review will inform the structure of an Irish specific cost-effectiveness model if there are sufficient data to develop such a model and if deemed appropriate to undertake de novo modelling (section 8). Accepted methods for conducting a systematic review of economic evaluations will be applied.⁽⁷⁾

8 Economic evaluation

A decision will be taken as to whether a de novo cost-effectiveness model is appropriate and or feasible based on the results of the systematic reviews of clinical effectiveness and safety and cost effectiveness. A budget impact analysis (BIA) will be conducted. In Ireland, the 'reference case' or preferred method in the primary analysis for HTA is to adopt the perspective of the publicly-funded health and social care system, that is, the HSE.⁽⁸⁾

A summary of the model characteristics for the BIA is presented in Table 2.

Table 2 Model characteristics for BIA

Model characteristics	BIA
Perspective	Publicly-funded health and social care system (HSE)
Time horizon	Five-year
Discount rate	N/A
Outcome	Incremental cost per annum
Sensitivity analysis	Deterministic and probabilistic

Key: BIA – budget impact analysis; HSE – Health Service Executive; N/A – not applicable.

The BIA will provide information for decision-makers regarding the potential affordability of the provision of teledermatology to support the management of primary care referrals. It will predict the costs to the HSE associated with implementing this service over an initial five-year time horizon, reported in terms of incremental annual cost. Estimates of the impact of this service will consider capital costs, resource use, staffing costs and any potential cost offsets.

If a de novo cost-effectiveness model is appropriate and or feasible, an Irish-specific cost-effectiveness analysis will be developed if there are sufficient data to do so. Data requirements would include definitive data on the impact of teledermatology on clinical effectiveness, safety or healthcare utilisation, and long-term evidence of impact.

For parameters that are unsupported by published literature, input from the EAG will be required to inform plausible values. In addition to the cost of this service, changes to organisational processes resulting from the addition of this service will be identified and considered as part of the BIA. Furthermore, potential cost offsets, such as reduction in face-to-face secondary care dermatology consultations, will also be considered and included if appropriate.

9 Organisational considerations

The assessment of necessary organisational changes will be carried out in accordance with the EUnetHTA Core Model.⁽⁹⁾ Based on the description of the current pathway for dermatology services, any anticipated changes in the organisation of care as a result of the introduction of a teledermatology service and the resulting impact on existing activities will be provided. The impact of the provision of a teledermatology service on various types of resources (such as,

human resources, equipment and supplies, and facilities) and any additional associated healthcare interventions (for example, additional patient education and support services) will be considered.

10 Ethical and legal considerations

The ethical analysis will consider key social and moral norms and values relevant to the provision of teledermatology to support the management of primary care referrals. Key ethical issues in the EUnetHTA Core Model will be used to guide the ethical analysis, under some or all of the following topic headings⁽⁹⁾:

- benefit-harm balance at both the individual and population level
- autonomy
- respect for persons
- informed consent
- ethical consequences.

Key legal issues in the EUnetHTA Core Model will be used to guide the legal analysis.
(9)

11 Patient and social considerations

There are many factors that need to be considered prior to the introduction of a teledermatology pathway to support the management of primary care referrals in Ireland. This chapter will outline the potential patient and social considerations relating to the provision of such a service. A review of the published literature will be conducted to inform the section on patient and social considerations. This chapter will also be informed by the data collected for the burden of disease, and the clinical effectiveness and safety chapters. The analysis of this information will be guided by the patient and social domain of the EUnetHTA HTA Core Model.⁽⁹⁾

12 Dissemination

The evidence gathered, as outlined in sections 4 to 11, will be synthesised in a draft report to be published on the HIQA website. The draft report will be available for feedback in a public consultation for a period of six weeks. Following the public consultation, the report will be updated as necessary and submitted to the Board of HIQA for approval. The finalised report will be published on the HIQA website and submitted to the Minister for Health and the HSE as advice.

References

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2. British Association of Dermatologists. Teledermatology: [Available from: <https://www.bad.org.uk/clinical-services/teledermatology/>.
3. Health Information and Quality Authority. Guidelines for Evaluating the Clinical Effectiveness of Health Technologies in Ireland: 2018 [Available from: <https://www.hiqa.ie/sites/default/files/2019-01/Clinical-Effectiveness-Guidelines.pdf>.
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5. Sterne JAC, Savovic J, Page MJ, Elbers RG, Blencowe NS, Boutron I, et al. RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ*. 2019;366:l4898.
6. Sterne JA, Hernan MA, Reeves BC, Savovic J, Berkman ND, Viswanathan M, et al. ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions. *BMJ*. 2016;355:i4919.
7. Higgins J, Thomas J, Chandler J, Cumpston M, Li T, Page M, et al. *Cochrane Handbook for Systematic Reviews of Interventions*. Version 6.4, 2023. Cochrane, Canada. 2023.
8. Health Information and Quality Authority. Guidelines for the economic evaluation of health technologies in Ireland. 2020.
9. European Network for Health Technology Assessment. European network for Health Technology Assessment. HTA Core Model®. Brussels, Belgium: 2016.

Appendix

Database Name	Medline via Ebscohost
Date search was run	25 June 2024

#	Query	Limiters/Expanders	Last Run Via	Results
S19	S16 OR S17	Limiters - Publication Date: 20040101-20241231 Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	3,140
S18	S16 OR S17	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	3,522
S17	AB (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*) OR TI (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,487
S16	S6 AND S15	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	3,070
S15	S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,865,269

S14	AB ((melanom* or nonmelanoma* or non-melanoma* or melanocyt* or non-melanocyt* or nonmelanocyt* or keratinocyt*)) OR TI ((melanom* or nonmelanoma* or non-melanoma* or melanocyt* or non-melanocyt* or nonmelanocyt* or keratinocyt*))	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	210,416
S13	AB (((basal cell or skin) N2 (cancer* or carcinoma* or mass or masses or tumour* or tumor* or neoplasm* or adenoma* or epithelioma* or lesion* or malignan* or nodule*))) OR TI (((basal cell or skin) N2 (cancer* or carcinoma* or mass or masses or tumour* or tumor* or neoplasm* or adenoma* or epithelioma* or lesion* or malignan* or nodule*)))	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	105,332
S12	AB (dermatolog* or skin or burn or burns) OR TI (dermatolog* or skin or burn or burns)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	754,284
S11	(MH "Burns+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	63,608
S10	(MH "Skin Diseases+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,208,665

S9	(MH "Skin Neoplasms+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	147,413
S8	MH "Skin Abnormalities+"	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	35,203
S7	(MH "Dermatology")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	21,813
S6	S1 OR S2 OR S3 OR S4 OR S5	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	68,799
S5	TI (ehealth or e-health or e-consult* or evisit* or econsult* or "electronic consult*") OR AB (ehealth or e-health or e-consult* or econsult* or "electronic consult* or evisit*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	8,851
S4	TI (telemedicine or "tele medicine" or telemedicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*") OR AB (telemedicine or "tele medicine" or telemedicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	25,104

	"video consult*" or videoconsult* or "remote consult*")			
S3	TI (telehealth or telehealth or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*") OR AB (telehealth or telehealth or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	16,232
S2	(MH "Remote Consultation+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	5,954
S1	(MH "Telemedicine+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	47,911

On 12 February 2025, there was an increase in scope of the review to include melanoma. The search strategies below were amended to find literature that looks at Teledermatology and Melanoma.

SOURCES SEARCHED

Databases	Number of results	Date searched
Medline Complete	350	12/02/2025
Embase	585	12/02/2025
The Cochrane Database of Systematic Reviews	1	12/02/2025
CINAHL Complete	111	12/02/2025
APA PsycInfo	21	12/02/2025
Total	1068	

Total after duplicates removed in Endnote and Covidence	716	
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Trial Registries	Number of results	Date searched
CENTRAL via the Cochrane Library	72	12/02/2025
ClinicalTrials.gov	8	12/02/2025
Total	80	
Total after duplicates removed in Endnote and Covidence	77	

SEARCH STRATEGIES

Database Name	MEDLINE Complete via EBSCO
Date search was run	12 Feb 2025

#	Query	Limiters/Expanders	Last Run Via	Results
S12	S7 AND S11	Limiters - Publication Date: 20040101- Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	350
S11	S8 OR S9 OR S10	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	187,468
S10	AB (pigment* N1 (lesion* or cancer*)) OR TI (pigment* N1 (lesion* or cancer*))	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	4,747

S9	AB (melanom* or melanocyt* or melano-carcinoma OR melano-sarcoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosaarcoma OR melanotic) OR TI (melanom* or melanocyt* or melano-carcinoma OR melano-sarcoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosaarcoma OR melanotic)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	168,746
S8	(MH "Melanoma+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	114,404
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	73,889
S6	AB (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*) OR TI (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,564
S5	TI (ehealth or e-health or e-consult* or evisit* or econsult* or "electronic consult*") OR AB (ehealth or e-health or e-consult* or econsult* or "electronic consult* or evisit*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	9,438

S4	TI (telemedicine or "tele medicine" or telemedicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*") OR AB (telemedicine or "tele medicine" or telemedicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	26,745
S3	TI (telehealth or telehealth or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*") OR AB (telehealth or telehealth or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	17,618
S2	(MH "Remote Consultation+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	6,100
S1	(MH "Telemedicine+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	51,069

Database Name	CINAHL Complete via EBSCO
Date search was run	12 Feb 2025

Wed, February 12, 2025 1:54:11 PM

#	Query	Limiters/Expanders	Last Run Via	Results
S12	S7 AND S11	Limiters - Publication Date: 20040101- Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	111
S11	S8 OR S9 OR S10	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	25,003
S10	AB (pigment* N1 (lesion* or cancer*)) OR TI (pigment* N1 (lesion* or cancer*))	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	661
S9	AB (melanom* or melanocyt* or melanocarcinoma OR melanosarcoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic) OR TI (melanom* or melanocyt* or melanocarcinoma OR melanosarcoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	21,356
S8	(MH "Melanoma+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	15,651
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	45,546

			Database - CINAHL Complete	
S6	AB (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*) OR TI (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	615
S5	TI (ehealth or e-health or e-consult* or evisit* or econsult* or "electronic consult*") OR AB (ehealth or e-health or e-consult* or econsult* or "electronic consult* or evisit*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	5,386
S4	TI (telemedicine or "tele medicine" or tele-medicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*") OR AB (telemedicine or "tele medicine" or tele-medicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	11,041
S3	TI (telehealth or tele-health or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*") OR AB (telehealth or tele-health or "tele health" or telecare or "tele	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	10,794

	care" or "tele-care" or teleconsult* or "tele consult*")			
S2	(MH "Remote Consultation+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	3,553
S1	(MH "Telemedicine+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	29,470

Database Name	APA PsycINFO via EBSCO
Date search was run	12 Feb 2025

#	Query	Limiters/Expanders	Last Run Via	Results
S11	S6 AND S10	Limiters - Publication Date: 20040101- Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	21
S10	S7 OR S8 OR S9	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,784
S9	AB (pigment* N1 (lesion* or cancer*)) OR TI (pigment* N1 (lesion* or cancer*))	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	20
S8	AB (melanom* or melanocyt* or melanocarcinoma OR melanosarcoma OR melanoblastoma OR	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,712

	melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic) OR TI (melanom* or melanocyt* or melanocarcinoma OR melanocarcinoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic)			
S7	DE "Melanoma"	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	649
S6	S1 OR S2 OR S3 OR S4 OR S5	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	20,761
S5	AB (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*) OR TI (teledermatolog* or tele-dermatolog* or telederm or tele-derm or teledermoscop* or tele-dermoscop* or teledermatoscop*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	58
S4	TI (ehealth or e-health or e-consult* or evisit* or econsult* or "electronic consult*") OR AB (ehealth or e-health or e-consult* or econsult* or "electronic consult* or evisit*)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	2,289
S3	TI (telemedicine or "tele medicine" or telemedicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	3,558

	consult*" or videoconsult* or "remote consult*") OR AB (telemedicine or "tele medicine" or tele- medicine or telemonitor* or "tele monitor*" or telepractice* or telepatholog* or "video consult*" or videoconsult* or "remote consult*")			
S2	TI (telehealth or tele- health or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*") OR AB (telehealth or tele- health or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or "tele consult*")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	4,941
S1	DE "Telemedicine" OR DE "Online Therapy" OR DE "Teleconferencing" OR DE "Teleconsultation" OR DE "Telepsychiatry" OR DE "Telepsychology" OR DE "Telerehabilitation"	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	17,672

Database Name	The Cochrane Library
Date search was run	12 Feb 2025

ID	Search	Hits
#1	(telehealth or tele-health or "tele health" or telecare or "tele care" or "tele-care" or teleconsult* or tele NEXT	5941

	consult*):ti,ab,kw (Word variations have been searched)	
#2	(telemedicine or "tele medicine" or tele-medicine or telemonitor* or tele NEXT monitor* or telepractice* or telepatholog* or video NEXT consult* or videoconsult* or remote NEXT consult*):ti,ab,kw (Word variations have been searched)	8616
#3	(ehealth or e-health or e-consult* or evisit* or econsult* or electronic NEXT consult*):ti,ab,kw (Word variations have been searched)	2146
#4	(teledermatolog* or tele - dermatolog* or telederm or tele - derm or teledermoscop* or tele - dermoscop* or teledermatoscop*):ti,ab,kw (Word variations have been searched)	131
#5	#1 OR #2 OR #3 OR #4 with Cochrane Library publication date Between Jan 2004 and Dec 2024	14009
#6	(melanom* or melanocyt* or melano-carcinoma OR melano-sarcoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic):ti,ab,kw (Word variations have been searched)	7654
#7	((pigment* NEAR/1 (lesion* or cancer*))) :ti,ab,kw (Word variations have been searched)	125
#8	#6 OR #7	7727
#9	#5 AND #8 with Cochrane Library publication date from Jan 2004 to present	74

Database Name	Clinical Trials.gov
Date search was run	12 Feb 2025
Search Strategies	<p>Search 1: Melanoma telemedicine</p> <p>Search 2: Melanoma teledermatology</p> <p>Search 3: Melanoma telehealth</p> <p>Search 4: Pigmented Lesions telemedicine</p>

	Search 5: Pigmented Lesions tele dermatology Search 6: Pigmented Lesions telehealth
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