



**Health
Information
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An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Health technology assessment of tele dermatology to support the management of primary care referrals

Appendix

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Appendix A Supplementary data for Chapter 3

Table A 1 Median time to appointment by hospital for 2024 and 2025

Year	Hospital Name	Median months	Q1	Q3	IQR
2024	Bantry General Hospital	9	9	9	0
2024	Beaumont Hospital, Dublin	5	4	8	4
2024	Cavan General Hospital	12	11	12	1
2024	Children's Health Ireland (CHI) at Tallaght	17	7	17	10
2024	Children's Health Ireland (CHI) at Crumlin	11	6	13	7
2024	Children's Health Ireland (CHI) at Temple Street	12.5	6.25	36	29.75
2024	Connolly Hospital, Blanchardstown	6	5	8	3
2024	Cork University Hospital	9	7	11	4
2024	Galway University Hospitals	4	3	7	4
2024	Letterkenny University Hospital	6	4	8	4
2024	Mallow General Hospital	8	6	10	4
2024	Mater Misericordiae University Hospital	9	7	10	3
2024	Mayo University Hospital	5	4	6	2
2024	Midland Regional Hospital, Mullingar	15	4	17	13
2024	Midland Regional Hospital, Tullamore	12	10	12	2
2024	Naas General Hospital	8	2.75	13	10.25
2024	Our Lady of Lourdes Hospital, Drogheda	10	2	12	10
2024	Portiuncula University Hospital, Ballinasloe	29.5	4	32.75	28.75
2024	Sligo University Hospital	5	3	7	4
2024	South Infirmary Victoria University Hospital	3	2	8	6
2024	St. James's Hospital, Dublin	15	10	22	12
2024	St. Michael's Hospital, Dun Laoghaire	19	6	20	14
2024	St. Vincent's University Hospital	9	6	12	6
2024	Tallaght Hospital	11	7	21	14
2024	University Hospital Kerry	7	3	7	4
2024	University Hospital Limerick	5	2	8	6
2024	University Hospital Waterford	5	5	6	1
2025	Bantry General Hospital	9	7	10	3
2025	Beaumont Hospital, Dublin	4	2	5.25	3.25
2025	Children's Health Ireland (CHI) at Tallaght	7	7	9	2
2025	Children's Health Ireland (CHI) at Crumlin	3	2	8	6
2025	Children's Health Ireland (CHI) at Temple Street	12	3	16	13
2025	Connolly Hospital, Blanchardstown	6	6	7	1
2025	Cork University Hospital	8	5	10	5
2025	Galway University Hospitals	3	2	4	2
2025	Letterkenny University Hospital	10	3	13	10
2025	Mallow General Hospital	3	2	4	2
2025	Mater Misericordiae University Hospital	7	5	10	5

2025	Mayo University Hospital	5	3	7	4
2025	Midland Regional Hospital, Mullingar	16.5	6	18	12
2025	Midland Regional Hospital, Tullamore	4	3	10	7
2025	Naas General Hospital	8	2	17	15
2025	Our Lady of Lourdes Hospital, Drogheda	4	3	14	11
2025	Portiuncula University Hospital, Ballinasloe	5	3	16	13
2025	Sligo University Hospital	6	2	8	6
2025	South Infirmary Victoria University Hospital	3	2	5	3
2025	St. James's Hospital, Dublin	6	4	9	5
2025	St. Michael's Hospital, Dun Laoghaire	19	5.75	19	13.25
2025	St. Vincent's University Hospital	7	5	11	6
2025	Tallaght Hospital	9	6	18	12
2025	University Hospital Kerry	3	3	11	8
2025	University Hospital Limerick	5.5	4	20	16
2025	University Hospital Waterford	6	4	8	4

Table A 2 Median time on waiting list without an appointment date by hospital for 2024 and 2025

Year	Hospital Name	Median months	Q1	Q3	IQR
2024	Bantry General Hospital	8	3.5	11	7.5
2024	Beaumont Hospital, Dublin	5	3	7	4
2024	Cavan General Hospital	6	3	9	6
2024	Children's Health Ireland (CHI) at Tallaght	7	3	11	8
2024	Children's Health Ireland (CHI) at Crumlin	9	4	17	13
2024	Children's Health Ireland (CHI) at Temple Street	8	4	15	11
2024	Connolly Hospital, Blanchardstown	7	7	7	0
2024	Cork University Hospital	3	3	4	1
2024	Galway University Hospitals	16	5	30	25
2024	Letterkenny University Hospital	8	4	18	14
2024	Mallow General Hospital	4	2	6	4
2024	Mater Misericordiae University Hospital	1	0	2.25	2.25
2024	Mayo University Hospital	12	5	24	19
2024	Midland Regional Hospital, Mullingar	4	2	7	5
2024	Midland Regional Hospital, Portlaoise	10	10	10	0
2024	Midland Regional Hospital, Tullamore	5	3	8	5
2024	Naas General Hospital	6	3	9	6
2024	Our Lady of Lourdes Hospital, Drogheda	5	3	8	5
2024	Portiuncula University Hospital, Ballinasloe	7	3	11	8
2024	Sligo University Hospital	12	5	22	17
2024	South Infirmary Victoria University Hospital	5	2	8	6
2024	St. James's Hospital, Dublin	2	1	2	1
2024	St. Michael's Hospital, Dun Laoghaire	6	3	9	6

2024	St. Vincent's University Hospital	5	2	8	6
2024	Tallaght Hospital	6	3	10	7
2024	University Hospital Kerry	5	3	10	7
2024	University Hospital Limerick	6	3	12	9
2024	University Hospital Waterford	11	4	25	21
2025	Bantry General Hospital	5	2	8	6
2025	Beaumont Hospital, Dublin	6	3	10	7
2025	Children's Health Ireland (CHI) at Tallaght	9	6	13	7
2025	Children's Health Ireland (CHI) at Crumlin	9	3.25	16	12.75
2025	Children's Health Ireland (CHI) at Temple Street	8	4	14	10
2025	Connolly Hospital, Blanchardstown	4	4	4	0
2025	Cork University Hospital	6	4	9	5
2025	Galway University Hospitals	14	7	27	20
2025	Letterkenny University Hospital	7	3	12	9
2025	Mallow General Hospital	5	1	13	12
2025	Mater Misericordiae University Hospital	4	2	5	3
2025	Mayo University Hospital	17	8	36	28
2025	Midland Regional Hospital, Mullingar	6	2	9	7
2025	Midland Regional Hospital, Tullamore	4	2	6	4
2025	Naas General Hospital	6	3	10	7
2025	Our Lady of Lourdes Hospital, Drogheda	7	4	11	7
2025	Portiuncula University Hospital, Ballinasloe	4	2	6	4
2025	Sligo University Hospital	11	5	23.75	18.75
2025	South Infirmary Victoria University Hospital	5	2	8	6
2025	St. James's Hospital, Dublin	0	0	3	3
2025	St. Michael's Hospital, Dun Laoghaire	8	3	12	9
2025	St. Vincent's University Hospital	7	3	12	9
2025	Tallaght Hospital	6	3	9	6
2025	University Hospital Kerry	7	3	11	8
2025	University Hospital Limerick	6	3	12	9
2025	University Hospital Waterford	14	4	29	25
2024	Bantry General Hospital	8	3.5	11	7.5

Appendix B Supplementary data for Chapter 4

B.1 Search strategies

B.1.1 Original search

Table A 3 Search strategies

Database Name	Medline via Ebscohost
Data 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	Interface - EBSCOhost Research Databases	147,413

		Search modes - Proximity	Search Screen - Advanced Search Database - MEDLINE Complete	
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 "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	25,104

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

B.1.2 Tele dermatology and melanoma searches

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 tele dermatology 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	

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
Data 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 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 - 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	73,889

			Database - MEDLINE 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 - 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	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	17,618

	teleconsult* or "tele consult*")			
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
Data 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 - 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 melanocarcinoma OR melanoblastoma OR melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic) OR TI (melanom* or melanocyt* or melanocarcinoma OR melanocarcinoma OR melanoblastoma OR	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	21,356

	melanocarcinoma OR melanomalignoma OR melanosarcoma OR melanotic)			
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 Database - CINAHL Complete	45,546
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	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	11,041

	telepatholog* or "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 - CINAHL Complete	10,794
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
Data 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 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 - APA PsycInfo	1,712
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	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced	3,558

	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*")		Search Database - APA PsycInfo	
S2	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 - 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
Data 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 consult*):ti,ab,kw (Word variations have been searched)	5941
#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	Search 1: Melanoma telemedicine Search 2: Melanoma teledermatology Search 3: Melanoma telehealth Search 4: Pigmented Lesions telemedicine Search 5: Pigmented Lesions teledermatology Search 6: Pigmented Lesions telehealth

Table A 4 List of included studies

First Author and year (Study ID)	Trial registry number	Secondary study author & year
Abdul Gafoor 2024⁽¹⁾		
Altieri 2016 ⁽²⁾	-	-
Armstrong 2018 ⁽³⁾ PCORI	NCT02358135	Armstrong 2019 ⁽⁴⁾ ; Young 2023 ⁽⁵⁾
Arzberger 2016⁽⁶⁾		
Baba 2005 ⁽⁷⁾	-	-
Börve 2012 ⁽⁸⁾	-	-
Börve 2013 ⁽⁹⁾	-	-
Börve 2015 ⁽¹⁰⁾	-	Dahlen Gyllencreutz 2017 ⁽¹¹⁾ ; Dahlen Gyllencreutz 2018 ⁽¹²⁾
Bowns 2006a ⁽¹³⁾ RCT-ASTID	ISRCTN38440823	Collins 2004a ⁽¹⁴⁾ ; Collins 2004b ⁽¹⁵⁾
Bowns 2006b ⁽¹³⁾	ISRCTN38440823	
Carter 2017 ⁽¹⁶⁾	-	-
Castillo 2022 ⁽¹⁷⁾	-	-
Chang 2021⁽¹⁸⁾		
Chansky 2017 ⁽¹⁹⁾	-	-
Cheng 2022 ⁽²⁰⁾	-	-
Clarke 2021⁽¹⁸⁾		
Congalton 2015⁽²¹⁾		
Costin 2019 ⁽²²⁾	-	-
Creighton-Smith 2017 ⁽²³⁾	-	-
Damsin 2020⁽²⁴⁾		
Damsin 2023 ⁽²⁵⁾ TELESPOT	-	-
de Giorgi 2016⁽²⁶⁾		
di Stefani 2007⁽²⁷⁾		
Ebner 2008 ⁽²⁸⁾	-	-
Eminovic 2009 ⁽²⁹⁾ PERFECT-D	ISRCTN57478950	-
Fabbrocini 2008⁽³⁰⁾		
Faucon 2022 ⁽³¹⁾ CEDMEG	-	-
Fazil Jaber 2023⁽³²⁾		
Feigenbaum 2017 ⁽³³⁾	-	-
Felmingham 2023 ⁽³⁴⁾	NCT04040114	-
Ferrandiz 2007 ⁽³⁵⁾	-	-
Ferrandiz 2012⁽³⁶⁾		
Ferrandiz 2017 ⁽³⁷⁾ IMPAC-TDC	-	Ferrandiz 2017b ⁽³⁸⁾
Ferrara 2004⁽³⁹⁾		
Ford 2015 ⁽⁴⁰⁾	-	-
Fujimoto 2024⁽⁴¹⁾		
Gao 2023⁽⁴²⁾		

First Author and year (Study ID)	Trial registry number	Secondary study author & year
Gatica 2015 ⁽⁴³⁾	-	-
Heffner 2009 ⁽⁴⁴⁾	-	-
Holmes 2020 ⁽⁴⁵⁾	-	-
Hsiao 2008 ⁽⁴⁶⁾	-	-
Hunt 2020 ⁽⁴⁷⁾		
Hussain 2023 ⁽⁴⁸⁾		
Ilie 2022 ⁽⁴⁹⁾	-	-
Jariwala 2021 ⁽⁵⁰⁾	-	-
Jones 2021 ⁽⁵¹⁾	-	-
Joseph 2023 ⁽⁵²⁾	-	-
Kahn 2013 ⁽⁵³⁾	-	-
Kazi 2021 ⁽⁵⁴⁾	-	-
Keleshian 2017 ⁽⁵⁵⁾	-	-
Kim 2020 ⁽⁵⁶⁾	-	-
Kips 2020 ⁽⁵⁷⁾	-	-
Klaz 2005 ⁽⁵⁸⁾	-	-
Knol 2006 ⁽⁵⁹⁾	-	-
Koch 2024 ⁽⁶⁰⁾ TELEDerm	DRKS00012944	-
Kroemer 2008 ⁽⁶¹⁾	-	-
Kroemer 2011 ⁽⁶²⁾	-	-
Lasierra 2012 ⁽⁶³⁾		-
Lepe 2004 ⁽⁶⁴⁾	-	-
Lim 2012 ⁽⁶⁵⁾	-	-
Lopez-Liria 2022 ⁽⁶⁶⁾ TELEDERMA	NCT04378296	Leal-Costa 2022 ⁽⁶⁷⁾
Lowe 2021 ⁽⁶⁸⁾	-	-
Mahendran 2005 ⁽⁶⁹⁾	-	-
Marchell 2017 ⁽⁷⁰⁾	-	Marchell 2017b ⁽⁷¹⁾
Marwaha 2019 ⁽⁷²⁾	-	-
Marwaha 2021 ⁽⁷³⁾	-	-
Massone 2005 ⁽⁷⁴⁾	-	-
Massone 2006 ⁽⁷⁵⁾	-	-
Massone 2007 ⁽⁷⁶⁾		
Massone 2021 ⁽⁷⁷⁾		
May 2008 ⁽⁷⁸⁾		
McGoey 2015 ⁽⁷⁹⁾		
McKoy 2004 ⁽⁸⁰⁾	-	-
McLaughlin 2006 ⁽⁸¹⁾		
Mofid 2007 ⁽⁸²⁾	-	-
Moreno-Ramirez 2006 ⁽⁸³⁾		
Moreno-Ramirez 2007 ⁽⁸⁴⁾	-	-
Morton 2011 ⁽⁸⁵⁾	-	-

First Author and year (Study ID)	Trial registry number	Secondary study author & year
Naka 2018 ⁽⁸⁶⁾	-	Calafiore 2023 ⁽⁸⁷⁾
Nami 2015 ⁽⁸⁸⁾	-	-
Nizar 2024 ⁽⁸⁹⁾		
O'Connor 2017 ⁽⁹⁰⁾	-	-
Oztas 2004 ⁽⁹¹⁾	-	-
Palamaras 2022 ⁽⁹²⁾	-	-
Papadimitriou 2021 ⁽⁹³⁾	-	-
Piccolo 2004 ⁽⁹⁴⁾		
Piette 2017 ⁽⁹⁵⁾	NCT02122432	-
Pizzichetta 2004 ⁽⁹⁶⁾		
Rios- Yuil 2012 ⁽⁹⁷⁾	-	-
Rogers 2022 ⁽⁹⁸⁾	-	-
Romero 2006 ⁽⁹⁹⁾ DERMATEL	-	-
Romero 2010 ⁽¹⁰⁰⁾ DERMATEL-2	-	Romero Aguilera 2014 ⁽¹⁰¹⁾
Rubegni 2011 ⁽¹⁰²⁾	-	-
Ruiz 2009 ⁽¹⁰³⁾	-	-
Sahin 2024 ⁽¹⁰⁴⁾		
Schultz 2023 ⁽¹⁰⁵⁾		
Seiger 2020 ⁽¹⁰⁶⁾	-	-
Senel 2013 ⁽¹⁰⁷⁾	-	-
Senel 2014 ⁽¹⁰⁸⁾	-	-
Shalmon 2023 ⁽¹⁰⁹⁾	-	-
Shapiro 2024 ⁽¹¹⁰⁾	-	-
Shin 2014 ⁽¹¹¹⁾	-	-
Sola-Ortigosa 2020 ⁽¹¹²⁾	-	-
Taberner Ferrer 2009 ⁽¹¹³⁾		-
Tan 2010 ⁽¹¹⁴⁾ IMAGE-IT	ACTR No. 12609000782235	-
Taslidere 2022 ⁽¹¹⁵⁾	-	-
Taslidere 2023 ⁽¹¹⁶⁾	-	-
Tensen 2022 ⁽¹¹⁷⁾	-	-
Van der Heijden 2011 ⁽¹¹⁸⁾	-	-
Van der Heijden 2013 ⁽¹¹⁹⁾		
Vañó-Galván 2011 ⁽¹²⁰⁾	-	-
Veronese 2021 ⁽¹²¹⁾		
Veronese 2022 ⁽¹²²⁾	-	-
Vestergaard 2020 ⁽¹²³⁾	-	Vestergaard 2021a ⁽¹²⁴⁾ ; Vestergaard 2021b ⁽¹²⁵⁾ ; Vestergaard 2024 ⁽¹²⁶⁾ ; Gilling 2020 ⁽¹²⁷⁾ ; Niklasson 2023 ⁽¹²⁸⁾
Wang 2020 ⁽¹²⁹⁾	-	-

First Author and year (Study ID)	Trial registry number	Secondary study author & year
Warshaw 2009 ⁽¹³⁰⁾	-	Warshaw 2009 (pigmented) ⁽¹³¹⁾ ; Warshaw 2010a ⁽¹³²⁾ ; Warshaw 2010b ⁽¹³³⁾ ; Warshaw 2015 ⁽¹³⁴⁾
Whited 2013 ⁽¹³⁵⁾	NCT00488293	Whited 2013b ⁽¹³⁶⁾ ; Datta 2015 ⁽¹³⁷⁾
Wu 2021 ⁽¹³⁸⁾	-	-
Zink 2017a ⁽¹³⁹⁾	-	-
Zink 2017b ⁽¹⁴⁰⁾	-	-

B.2 PRISMA diagrams

Figure A 1 PRISMA flow diagram of study selection process – original search

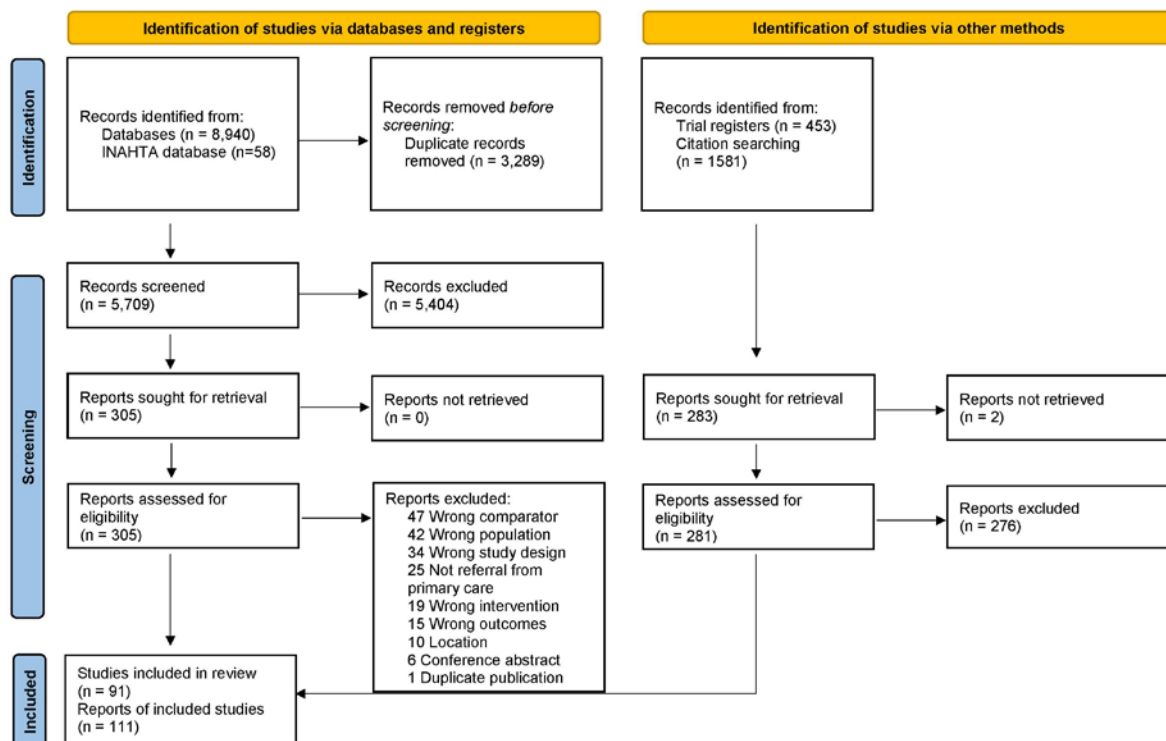
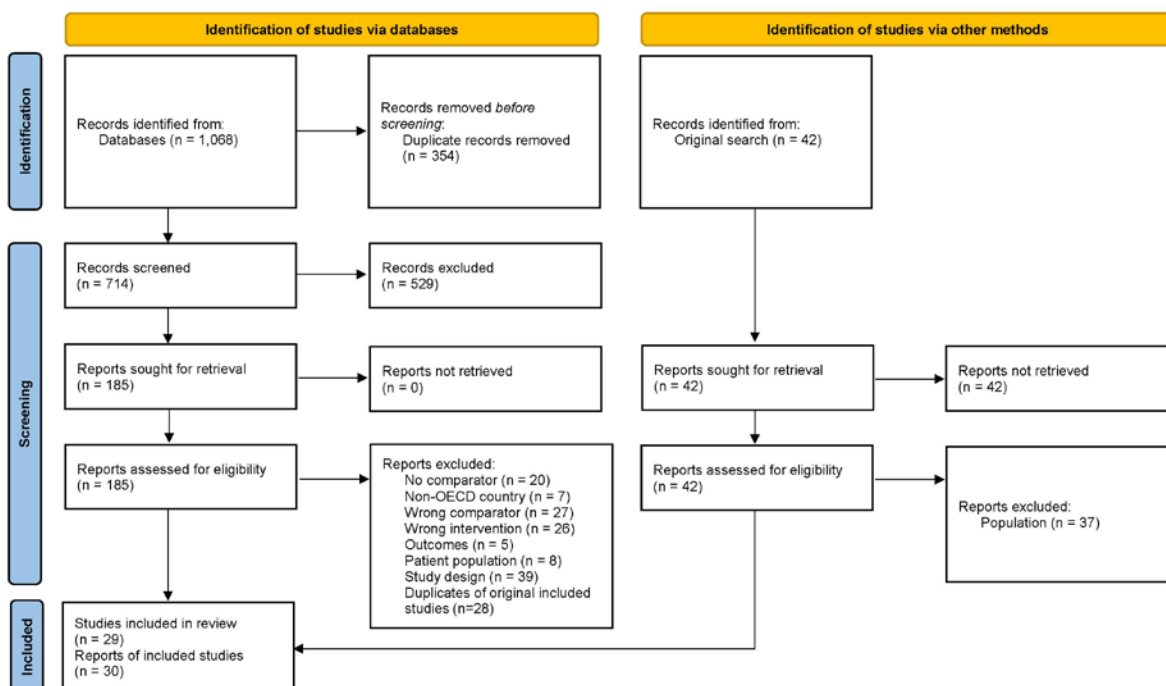


Figure A 2 PRISMA flow diagram of study selection process – suspected melanoma search



B.3 Additional information

Table A 5 Study characteristics

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
AbdulGafoor 2024	Patients with a number of different skin lesions that would be encountered in clinical practice and who were already attending a face-to-face clinic at two locations [a 2-week-wait (2WW) clinic and the community general practice] were invited to participate.	Different	NR	NR	Primary	GP
Altieri 2016	All patients over 18 years of age presenting with new, visible skin complaints at the dermatology clinic were considered for the study, which was conducted from February 2007 to June 2007.	Different	5	None	Primary	Not clear- reports diagnostic accuracy and management
Armstrong 2018 (NCT02358135)	Eligibility criteria were an age of 18 years or older, having physician-diagnosed plaque psoriasis (new or previous diagnosis), access to the internet and a digital camera or a mobile phone with camera features, and having a PCP or the ability to establish primary care.	Different	31	Research	Primary	Primary care provider
Arzberger 2016	Study participants were required to meet at least one of the following factors associated with moderate-to-high risk of melanoma: (i) personal or first-degree relative history of melanoma; (ii) history of dysplastic naevi; (iii) > 5 atypical naevi; (iv) > 100 naevi; (v) lesion suspicious for melanoma.	Different	52	Industry	Primary	NR
Baba 2005	All new patients who were admitted to our dermatology outpatient clinic during the study period. There were no inclusion or exclusion criteria.	Different	2.5	NR	Primary	Not clear- reports diagnostic accuracy

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Börve 2012	Patients were only offered inclusion in the study if the GP considered that a referral to a dermatologist was necessary and if the skin condition or lesion could be photographed with a mobile phone camera. Patients with conditions associated with poor protocol compliance (e.g., dementia, drug or alcohol abuse) and under the age of 18 years were excluded.	Different	NR	Charitable grant	Primary	GP
Börve 2013	Consecutive patients with one or more suspicious skin lesions were included in the study if a biopsy or excision was deemed to be necessary after clinical and dermatoscopic examination during a FTF visit with a single dermatologist. The exclusion criteria were: patients under 18 years, patients with no knowledge of the Swedish language, skin lesions located on a part of the skin that did not allow for digital photography with the smartphone and customised dermatoscope used in the study and skin lesions in which histopathological examination was not performed.	Different	4	Government grant	Primary	GP
Börve 2015	All patients over 18 years of age with one or more skin lesions of concern requiring referral to a dermatologist were eligible for inclusion in the study using the TDS referral system. Patients were excluded if they did not fulfil the inclusion criteria, if they did not attend the FTF visit(s), in cases of non-compliance or if their skin lesions were located on a body part that could not be photographed.	NR- likely different	11.5	Government grant/ charitable funding	Primary	GP
Bowns 2006a (ISRCTN38440823)	New (referred with a new problem or not seen by a hospital dermatologist in the last 12 months), adult (aged 16 years and over) patients for whom the GP felt there would normally be a need for a conventional outpatient consultation with an NHS	Different	NR	Government grant	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	consultant dermatologist. Two main reasons for exclusion: first, the nature of the dermatological problem (these will be rare and mainly related to the anatomical site, e.g., genital lesions); second, reasons unrelated to the skin problem, such as an inability to understand the nature of the study for reasons of language barrier, mental illness or handicap, wish to consult privately, refusal of consent and so on.					
Bowns 2006b (ISRCTN38440823)	All patients who were either referred to the Two Week Wait or 'target' clinics, or patients initially referred to the normal outpatient service but diverted by the consultant who read the letter to grade the urgency of the case, received a written invitation to participate.	Different	NR	Government grant	Primary	GP
Carter 2017	Age of at least 18 years and with a dermatologic complaint of erythematous eruptions, nonmelanocytic skin neoplasms, wounds, alopecia, or other skin conditions. The PCPs were instructed to select patients for tele dermatology consults who would have been otherwise referred for in-patient dermatology visits.	Different	20	NR	Medical records	Primary care provider
Castillo 2022	All completed SAF encounters from March 2020 through December 2020 for patients referred from the SFVAHCS community based outpatient clinics were analysed. All FTF encounters and VVC encounters serving SFVAHCS patients and interfacility consult patients during this time period were also analysed.	Different	10	Government grant	Electronic medical data obtained by query of the VA Corporate Data Warehouse and abstraction from the Computerized Patient Record System of San	Medical centre and community based outpatient clinics.

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
					Francisco Veterans Affairs Health Care System	
Chang 2021	Melanoma Prevention Working Group (MPWG) members, comprised of interdisciplinary academic melanoma specialists involved in the National Cancer Trials Network. Participants were sourced from the MPWG mailing list to identify U.S. dermatologists who treat melanoma patients. Respondents were limited to one melanoma specialist per site to capture institution-level experiences.	NA	3	NR	Primary	NR
Chansky 2017	NR	NR- likely different	30	None	Electronic medical records at Puentes de Salud	Primary care provider
Cheng 2022	Patients referred with suspected nonmelanoma skin cancer during February 2020 (prior to the COVID-19 lockdown) and April 2020 (during the level 4 lockdown) at a public hospital dermatology department in Auckland, New Zealand.	NR- likely different	Not clear	None	Electronic medical records at a public hospital dermatology department in Auckland	Not clear but public hospital in New Zealand (would require GP referral) reports diagnostic accuracy and management
Clarke 2021	Adult patients who presented with at least one skin lesion of concern in two outpatient dermatology clinics. A lesion of concern was defined as any skin lesion identified by the patient, family, partner, or referring doctor that would prompt the patient to be evaluated by a dermatologist. Lesions noted only in the clinic dermatologist's exam, rashes, and patients less than 18 years old were excluded from the study.	Different	5	Public	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Congalton 2015	All patients referred from primary care between 1st April 2012 and 31st of March 2013 with skin lesions suspicious for melanoma were assigned to the Virtual Lesion Clinic for triage. Skin lesions on scalp and genitals, and those where body site was not clearly identified in the referral were excluded. Referrals that indicated 1–6 lesions of concern were included but total body skin examination was not offered.	NA	12	Industry	Primary	GP
Costin 2019	All clinically suspicious solitary lesions.	Same	7	None	Primary	GP
Creighton-Smith 2017	All new SAF TD consultations. Randomly selected new F2F consultations.	Different	12	No funding source	Electronic medical records	NR
Damsin 2020	NR	NA	NR	NR	Primary	GP
Damsin 2023	Patients with a suspicious tumoural lesion.	NR	36	None	Electronic medical records	Primary care provider
deGiorgi 2016	Ten challenging pigmented lesions were retrospectively collected from the clinical database of the Dermatology Department, University of Florence, Italy.	Different	NR	Public	Clinical database of the Dermatology Department, University of Florence	NR
diStefani 2007	Patients were recruited at the Department of Dermatology, University of Rome "Tor Vergata." All consecutive patients with multiple PSL, exhibiting at least three clinically atypical melanocytic nevi on their back, were included in the study Clinically atypical melanocytic nevi were defined as flat or slightly elevated, acquired melanocytic nevi showing at least one of the following criteria: (1) diameter of more than 5 mm, (2) color variegation, (3) asymmetry, and/or (4) irregular borders.	Different	NR	NR	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Ebner 2008	Subjects were eligible to participate if they met the following criteria: adult with visible skin lesions; willing to participate; and able to provide informed consent. Children, subjects with skin lesions that could not be visibly documented (e.g., phlebothrombosis) or subjects who were not willing to provide informed consent were excluded.	Different	7	NR	Primary	Not clear- however diagnostic concordance in multiple measures cohort
Eminovic 2009 (ISRCTN57478950)	We recruited participants from the general practices that referred patients to these dermatologists. Eligible practices were required to have facilities to send digital images over the Internet. Familiarity with a digital camera and/or the Internet was not required for GPs or dermatologists. The GPs who were current users of teledermatologic consultation or who had used it more than four times in the previous 12 months were excluded. Patients were eligible if they were referred by their GP to one of the recruited dermatologists and did not require a dermatologic consultation within two days. randomized GP practices rather than individual patients to prevent contamination. In this clustered design, all GPs at any single practice used either teledermatologic consultation or standard procedures (control group).	Same	24	Government grant	Primary	GP
Fabbrocini 2008	All the lesions recruited were difficult to diagnose, as they were hypopigmented or totally non-pigmented. The criteria for selection were poor and/or absent pigmentation, absence of regular network and diameter < 5 mm.	Different	NR	NR	Primary	NR
Faucon 2022	GPs could register any patients with one or several skin disorders, regardless of age or clinical presentation. Patients enrolled on CEDMEG who did not attend the FTF consultation were excluded from	Different	39	None	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	the analysis, as were patients with uncertain or no final diagnosis (e.g., patients with no lesions at the FTF consultation).					
Feigenbaum 2017	Images and video were collected from 21 patients whose conditions were categorized as common or less common based on expert opinion and the frequency with which they are encountered in the outpatient paediatric dermatology setting.	Different	NR	Research	Primary	NR- assume GP as hospital clinic
Felmingham 2023 (NCT04040114)	Inclusion Criteria: Patients attending the specialist dermatology clinics for skin cancer assessment or surveillance. Patients may or may not have a lesion of concern. Patients must have at least two lesions imaged during full skin examination by a dermatologist. Age greater than 18 years. Participant is willing and able to undertake investigation of suspicious lesion (e.g., skin biopsy). Exclusion Criteria: Patient does not give informed consent. Patient is unable or unwilling to have a full skin examination. Patient has a known past or current diagnosis of cognitive impairment.	Different	20	Government and industry	Primary	Not clear but public hospital in Australia (would require GP referral) and concordance measured on same day
Ferrandiz 2007	An SAF system aimed at the selection of patients who attend their PCPs with suspicious skin growths was implemented at our skin cancer clinic back in 2003. Patients included in the TD-based surgical referral system had to present with a clear-cut diagnosis of nonmelanoma skin cancer, or a fast-growth vascular tumour (i.e., pyogenic granuloma), suitable for surgery under local anaesthesia after the evaluation of the teleconsultation. Those lesions expected to need a major reconstruction (i.e., large grafts or flaps) after the telemedical evaluation	Different	12	Research	Primary	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	represented formal contraindications for this procedure; these patients were excluded from the study and referred to the conventional referral system. Patients showing lesions highly suspicious for malignant melanoma were also excluded as these patients are directly referred to the melanoma clinic within the following 48 hours since the submission of the teleconsultation.					
Ferrandiz 2012	Patients who were older than 18 years, had a histopathological diagnosis of primary cutaneous melanoma reported by the Pathology Unit of the hospital during the study period, and were referred by teleconsultation or by other non-TD tracks were enrolled in the study. In the TD system evaluated, eligible patients to be managed by teleconsultation had to be seen at their primary care center with a circumscribed lesion fulfilling at least 1 of the following criteria: recently growing lesions, recent history of a lesion, local symptoms (pain, itching, or bleeding), or ABCD changes (asymmetry, border irregularity, color variation, and diameter 6 mm). Eligible patients in the non-TD group were seen with cutaneous lesions considered suspicious by general practitioners (GPs) from primary care centers at geographic areas not served by TD.	Different	60	NR	Primary	GP
Ferrandiz 2017 #4020	Patients visiting five participating primary care centres because of concern over lesions suggestive of skin cancer were randomized after signing a consent form and ruling out the following exclusion criteria: multiple lesions, congenital lesions, and lesions on mucosal surfaces or hairy areas.	Different	12	Government grant	Primary	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Ferrara 2004	Twelve cases with dermatoscopic images (a single image per case) and accompanying histological material were retrieved from our consultation files.	Different	NR	NR	Consultation files from clinic	NR
Ford 2015	All referrals.	NR- likely different	26	NR	Referral data from Norwich Clinical Commissioning Group, anonymised participant data from Mole Clinic, primary data from patient questionnaire	GP
FazilJaber 2023	Patients from the electronic patient journal system CAMBIO Cosmic (Swedish health care information system, version 8.0). The International Statistical Classification of Diseases, 10th revision (ICD-10), code D229F was used to identify all patients with clinically suspect AML and MM in Cosmic. The assessment of pigmented lesions via FotoFinder (Systems GmbH) was not included in this study.	NR- likely different	6	Public	Electronic patient journal system CAMBIO Cosmic	GP
Fujimoto 2024	Patients treated in the dermatology department of Niigata Medical and Dental Hospital with a confirmed diagnosis.	Different	NR	Public	Primary	NR
Gao 2023	All patients referred to the Suspected Skin Cancer (SSC) service between July 1 and December 31, 2017, using electronic health records at Waikato Hospital. Lesion outcomes were followed until July 31, 2018. Exclusion criteria included erroneous referral to the incorrect pathway, referral of the incorrect patient, duplicate referral, or erroneous acceptance to face-to-face dermatology clinic.	Different	13	NR	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Gatica 2015	All referrals who were deemed in need of specialist diagnostic and management guidance.	Different	13	NR	Primary	Primary care provider
Heffner 2009	Patients were enrolled from the clinics of two board-certified paediatric dermatologists. Only new patients with a chief presenting complaint of either a rash or rash descriptors (e.g., bumps, spots, patches) were enrolled. No existing patients were enrolled unless the skin condition with which they presented was new and unrelated to their previous clinic visits	Different	13	None	Primary	Not clear but public paediatric dermatology clinic and reporting diagnostic concordance
Holmes 2020	All tele dermatology consults (n= 131) received from Puentes de Salud between January 2013 and November 2017. Tele dermatology consults were considered complete if the PCP uploaded at least one photograph and the tele dermatologist provided any plan of care.	NR- likely different	47	Research	Electronic medical records at Puentes de Salud	Primary care provider
Hsiao 2008	All patient encounters in the San Francisco VA Medical Centre dermatology surgery clinics between January 1, 2003 and July 31, 2007 were identified. Only surgical encounters originating from consult requests from a clinician at one of three remote outpatient clinics located at Santa Rosa, Eureka, or Ukiah were included. To help ensure that these surgical encounters were not the result of a tumour that was identified during a routine follow-up appointment, surgical encounters were excluded if a consult request had been placed more than a year before the surgery date or if the skin cancer had not been identified during the first in-person dermatology clinic visit after the initial referral. We also excluded three instances in which the patient already had a biopsy confirming a skin cancer diagnosis before referral to dermatology and was	Different	55	Research	Electronic medical records at San Francisco VA Medical Centre dermatology clinics in Santa Rosa, Eureka and Ukiah	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	automatically scheduled for surgery by the clinic scheduling staff.					
Hunt 2020	Adult patients referred by GPs for suspected skin cancer were either seen in conventional FTF appointments at the dermatology centre, or by a medical photographer at a local hospital.	NR	NR	NR	Primary	GP
Hussain 2023	Retrospective pilot study in Trust (comprising three hospital sites) to compare the NNB ratio for melanoma detection using the FTF and TD models of care. Consultant-only cases were identified between January 2018 and May 2019, and the histopathological outcome of all pigmented lesions referred for biopsy was recorded.	NR- likely different	17	None	Primary	NR- likely GP referral
Ilie 2022	Patients referred by a general practitioner who underwent a clinical consultation were assessed.	NR- likely different	1	None	Primary	GP
Jariwala 2021	Newly referred patients >18 years with non-urgent dermatologic conditions (not requiring in-person evaluation within 48–72 hours), patients seen by nonparticipating providers at the same practices with nonurgent dermatology consult orders during the study period. If multiple consult orders were placed, only the first was used for analysis. For medical and pharmacy claims data, only patients with continuous enrolment in an Independence health plan at least six months before and six months after the index primary care visit were included.	Different	Not clear	Research	Electronic medical records from five primary care University of Pennsylvania Health System practices, through Clarity, an Epic reporting database. Medical and pharmacy claims data from patients with Independence insurance were collected for subanalysis of	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
					cost and utilization.	
Jones 2021	Referrals for possible skin cancer to either the VLC or SSC pathway in 2020 or the VLC in 2016 Referrals for reasons other than a suspected skin cancer were excluded.	Different	Not clear	Research	Electronic review of referrals to VLC and SSC	Primary care provider
Joseph 2023	NR	NR- likely different	25	NR	Review of medical records at Grady Health System-	Primary care provider
Kahn 2013	Patients who ultimately received a diagnosis of skin cancer, specifically SCC, BCC and MM. Patients were eligible for this study if their referral to dermatology had been completed using either the traditional e consult referral system or the new tele dermatology program by which patient charts are routed electronically to the tele dermatologist.	Different	Not clear	Research	Electronic medical record review and database extraction (Co-Path database)	Primary care provider
Kazi 2021	When patients called to cancel in-clinic appointments or when our clinics reached out to cancel clinic appointments, they were given an unbiased choice to use either asynchronous or synchronous tele dermatology based on their own preference by front desk personnel or through our systems central scheduling.	Different	1.5	None	Electronic medical records	NR
Keleshian 2017	NR	Different	38	None	Medical record review	Primary care provider
Kim 2020	Patients were those 18 years of age or older with dermatologic concerns who would have otherwise been referred to a dermatology clinic for an in person visit.	Different	12	None	Primary and electronic medical record reviews at Stanford Health Care	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Kips 2020	Inclusion criteria for patients were: ≥ 18 years, capable of giving informed consent. Naevi and/or brown pigmented skin lesions that could be a naevus or dysplastic naevus or melanoma were excluded by the GPs. The GPs selected patients with skin conditions that were in their opinion suitable for a teleconsult.	Different	6.5	NR	Electronic medical records on KSYOS telemedical centre database	GP
Klaz 2005	Patients with a dermatologic condition that required a specialist, excluding those with pigmented skin lesions, were invited to participate in the pilot program by their PCP.	NA	6	NR	Primary	Primary care provider
Knol 2006	NR	NR	28	NR	Primary- GP survey	GP
Koch 2024 (DRKS00012944)	All AOK-HZV-enrolled patients aged 18 and above presenting with skin complaints.	Different	42	Government grant	Primary	GP
Kroemer 2008	Patients presenting with one or more particular skin tumours.	Different	NR	NR	Primary	NR
Kroemer 2011	Inclusion criteria: men or women with benign and/or malignant skin tumours of melanocytic or nonmelanocytic origin.	Different	NR	NR	Primary	Self-referral or referred by a local doctor
Lasierra 2012	In primary care centres, patients with dermatological lesions that were clearly diagnosed by general practitioners were not considered for a tele dermatology consultation, thus avoiding bias in the concordance analysis. There were no more exclusion criteria for other patients with dermatological diseases; hence no pre-selection was involved (neither pathological nor in terms of demographic conditions) when performing tele dermatology consultations.	Same	28	Government	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Lepe 2004	Patients with dermatological condition of any aetiology, evolution and location; patient of any age and gender.	Different	NR	NR	Primary	NR
Lim 2012	Patients referred to the dermatology service by their GP with one or more skin lesions were triaged by the duty dermatologist to either a traditional FTF clinic or a VLC, using the information in the referral letter. Inclusion criteria were: GP requests diagnosis and/or management of skin lesion(s), one to six lesions, clearly identified by location, lesions were not in the hair-bearing scalp or on the genitalia.	Different	NR	Public	Primary	GP
Lopez-Liria 2022 (NCT04378296)	The inclusion criteria were: being older than 18 years old, having a dermatological disease (without excluding by type or classification), and accepting to participate in the study. The exclusion criteria were: having non-dermatological diseases that could affect the study, refusing to participate, or participating in another study.	Different	12	Government	Primary	Primary care provider
Lowe 2021	New inflammatory dermatology referrals from primary care.	Different	60	NR	Clinical record database	Primary care provider
Mahendran 2005	Patients with suspicious skin lesions referred to the dermatology department by six local GPs, who completed TD.	Different	18	NR	Primary	GP
Marchell 2017	Patients referred from other clinics at the university.	Different	NR	NR	Primary	Other clinician
Marwaha 2019	Health plan members, aged 18 to 89 years, who had a primary care encounter for a skin lesion (alone or with a rash) during January through June 2017. Primary care encounters included both face-to-face visits and patient portal messages. Each patient was counted only once, and the date of visit to the primary care provider or the date of upload	Different	6	Research	Electronic medical records of Kaiser Permanente Northern California	Primary care provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	to the patient portal was defined as the date of entry into the study. We excluded patients who had contact with dermatology during the six months preceding study entry.					
Marwaha 2021	Health plan members aged zero to 89 years with an office or telephone encounter with a PCP for a rash or other new skin condition, other than a lesion, between January 2017 and March 2017. We also excluded patients who were diagnosed by the PCP or dermatologist with a second, non-rash dermatological condition on the same day as the index rash diagnosis. We excluded patients who, in the year preceding their index encounter, had a diagnosis of a dermatological condition or a dermatologist visit.	Different	3	Research	Electronic medical records	Primary care provider
Massone 2005	Selected consecutively in the outpatient service of the Department of Dermatology, Medical University of Graz, Graz, Austria, in July 2003. Patients who presented for the first time and who were referred for all skin conditions except melanocytic lesions were included. Only patients who agreed and signed the patient consent form were enrolled.	Different	1	NR	Primary	NR- however likely GP referral
Massone 2006	Patients presenting for the first time in the department of dermatology with referral for any skin condition except melanocytic lesions.	Different	1	NR	Primary	NR
Massone 2007	Eighteen consecutive patients were selected in the Pigmented Skin Lesions Clinic of the Department of Dermatology, Medical University of Graz, Graz (Austria) during two routine working days.	Different	2 days	None	Primary	NR
Massone 2021	Patients with lesions suspicious for skin cancer, severe psoriasis or severe acne.	Different	Unclear	Industry	Primary	GP
May 2008	NR	Different	12	NR	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
McGoey 2015	NR	NR- likely different	12	None	Primary	GP
McKoy 2004	Patients were enrolled through a nurse manager after their Primary care provider recommended a dermatology referral. They were enrolled on the same day as the visit to their primary physician. Only patients willing to participate and give informed consent were included into the study. Patients with acute skin conditions requiring immediate care and patients unwilling to return for a standard visit with the dermatologist were excluded.	NR- likely different	5	NR	Primary	Primary care provider
McLaughlin 2006	Patients suspected of having skin cancer by their general practitioner (GP) were referred using a structured electronic letter. The referral was sent to Monklands Hospital via the Scottish Care Initiative referral pathway.	NR- likely different	NR	Industry	Primary	GP
Mofid 2007	Patients requiring a dermatology consultation were asked if they wished to participate in a teleconsultation or a standard FTF appointment.	Same	16	NR	Primary	Primary care provider
Moreno-Ramirez 2006	Patients with pigmented circumscribed lesions fulfilling at least one of the following criteria: changing lesion (ABCD changes), recent lesion (less than 3 years old), multiple lesions (> 20 melanocytic naevi counted by the GP), symptomatic lesion (pain, itching or bleeding), or patient concern about moles.	Different	1	Public	Primary	GP
Moreno-Ramirez 2007	Participant primary care centres patients meeting inclusion criteria.	Different	17	Public	Primary	NR
Morton 2011	Only patients referred for an urgent appointment, where the GP suspected skin cancer.	Different	6	Public	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Naka 2018	NR	Different	6 months pre-eConsult , 6 months post-eConsult	Charitable grant	Electronic health records from Community Health Centre Inc (large multisite (n=19) health centre in Connecticut); from University of Connecticut Health Centre (large state funded tertiary care centre); and the eConsult platform records.	Primary care provider
Nami 2015	Patients referred for a first evaluation of skin disorders; selected from the outpatient clinics of the two departments (one day per week for three hours).	Different	12	Public	Primary	Self-referred or referred by GP
Nizar 2024	Analysis were collected from May 2022 to January 2024. Patients referred for an urgent skin lesion assessment, where exclusion of malignancy is the primary aim.	NR	21	Public	Primary and secondary sourced data from the digital clinical pathway, Pathpoint eDerma, and patient responses from the HIS.	GP
O'Connor 2017	Patients younger than 18 years of age, new patients or urgent visits in a paediatric dermatology practice, and parent with English fluency,	Different	7	Public	Primary	NR

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	smartphone ownership, and ability to download MyChart application.					
Oztas 2004	Outpatients at the Gazi University department of dermatology.	Different	NR	NR	Primary	NR
Palamaras 2022	Up to three single skin lesions. Exclusions of lesions that met the requirements for referral via the Two-Week Wait skin cancer pathway (i.e., not 'target'/suspected skin lesions for cancer), including no rapidly growing skin lesion(s) with an onset of four to six weeks. No paediatric patients. No lesions on ano-genital areas. No patients with a provisional diagnosis of SCC/melanoma.	Different	37	NR	Electronic health records	GP
Papadimitriou 2021	Dermatoscopic images obtained by basically trained dermatologists from patients who visited exclusively the general and not the specialized outpatient clinic of our hospital. All cases included in the study posed difficulties in differential diagnosis and were accompanied by a biopsy of one of the following diagnoses: psoriasis, dermatitis (contact, seborrheic or atopic), pityriasis rosea, discoid lupus erythematosus, actinic keratoses or lichen planus. Actinic keratosis was included in our case selection due to the common clinical traits it shares with the aforementioned inflammatory skin conditions, as we intended to create a real-life clinical setting.	Different	4	None	Electronic medical record	Not reported-dermatology department of a clinic
Piccolo 2004	NR	NR- likely different	NR	NR	Primary	NR
Piette 2017 (NCT02122432)	Patients were eligible to participate if they: 1) were over 18 years old and; and 2) had a skin condition for which the GP needed a dermatologist's opinion for diagnosis or treatment.	NR- likely different	5	Research institute grant	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Pizzichetta 2004	Hypomelanotic (extent of pigmentation \leq 30%) and amelanotic skin lesions. An image quality sufficiently good required for the evaluation of the dermatoscopic criteria, particularly vascular patterns.	NR- likely different	60	NR	Primary	NR
Rios-Yuil 2012	Patients who would normally be seen at the Ateneo de Dermatologia in a year.	Different	1	NR	Primary	NR
Rogers 2022	For the present study, images from tele-dermatology consults received in January 2018 were reviewed. Twenty sets of clinical and dermatoscopic images were selected as representative of common benign and malignant skin lesions seen in the tele-dermatology clinic.	Same	1	None	Primary	N/A
Romero 2006	Patients referred to dermatology for first consultation from two primary care health centres between August 2003 and February 2004.	Same	7	Research/ Government	Primary	GP
Romero 2010	Patients were referred to specialized care from six local health centres for dermatological symptoms not previously evaluated by a dermatologist.	NR- likely different	19	Research/ Government	Primary	GP
Rubegni 2011	Geriatric patients with skin diseases requiring dermatological examination.	Different	12	NR	Primary	NR
Ruiz 2009	All patients who agreed to participate in the study.	Same	3	Public	Primary	Consulting physician
Sahin 2024	All patients with a skin tumour diagnosis matching those included in the search filter who registered 1 year before and 1 year after the implementation, were identified and selected through the electronic patient record system.	NR- likely different	24	Public	Electronic patient record system	Primary care practitioner
Schultz 2023	All patients managed on the SC pathway due to suspected malignant melanoma 1) at a tertiary dermatology clinic, Södersjukhuset or 2) in the TDS project were recruited to this cohort study. Patients	NR- likely different	39	None	Electronic medical records	Primary care

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	aged 18 years and older were included. Referrals for specific suspected melanoma lesions that were considered high-priority were selected.					
Seiger 2020	All patients under age 18 for whom a paediatric dermatology eConsult was completed from program inception on November 1, 2014, through December 31, 2017.	NR- likely different	38	NR	Electronic medical records from Massachusetts General Hospital	Paediatrician
Senel 2013	Patients presenting to the dermatology outpatient clinic at the Ankara hospital and had a non-melanocytic skin tumour on clinical examination were enrolled in the study.	Different	6	NR	Primary	NR
Senel 2014	Patients with benign and malignant skin tumours from the patient archive of dermatology clinic.	Different	2	NR	Primary	NR
Shalmon 2023	Patients aged more than 18 years, presenting with one of 37 dermatologic conditions.	Different	21	NR	Primary	NR
Shapiro 2004	Patients judged by PCP to require dermatologic consultation for evaluation of a cutaneous growth.	Different	36	Private (Grant from a person)	Primary	Primary care provider
Shin 2014	Patients at the dermatology clinic at the Armed Forces Yangju Hospital.	Different	2	NR	Primary	NR
Sola-Ortigosa 2020	Adult patients who had spontaneously one to three keratotic lesions in sun exposed areas without keratolytic or destructive treatment in the previous three months and who agreed to participate.	Same	14	NR	Primary	Primary care provider
Taberner Ferrer 2009	Patients with lesions that could be photographed.	Different	31	NR	Primary	Primary care provider
Tan 2010 (ACTR No. 12609000782235)	Patients invited to take part in the study had been referred by their general practitioners to a hospital specialist skin lesion clinic for diagnosis and management of one or more skin lesions.	NR- likely different	Not clear	Research	Primary	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Taslidere 2022	Patients of all age groups who visited the hospital's dermatology outpatient clinic; patients with skin lesions and no prior diagnosis.	Different	3	NR	Primary	NR
Taslidere 2023	Patients below 16 years of age who visited the dermatology department.	Different	6.5	None	Primary	NR
Tensen 2022	TDsc consultations requested by GPs between July 2015 and June 2020 were included in the data analysis. Missing values in the database were excluded- defined as a TD report of "no diagnosis" (R69), "no abnormalities" (R68.8), or "nonassessable" (-), or if a GP had not answered both self-administered questions. In this study, three diagnosis groups were defined based on the TD diagnoses and the corresponding ICD-10 codes: malignant, premalignant, and benign. Malignant skin lesions included all malignant neoplasms (ICD-10 codes C00-C97) such as melanoma, basal cell carcinoma, and squamous cell carcinoma. Premalignant skin lesions were defined as a separate group and included in situ neoplasms (ICD-10 codes D00-D09), other specified epidermal thickening (ICD-10 code L85.8; e.g., keratoacanthomas), and actinic keratosis (ICD-10 code L57.0). Benign skin lesions included the remaining ICD-10 diagnoses. In this group, we specifically focused on seborrheic keratosis (ICD-10 code L82) and vascular lesions (ICD-10 codes D18, I78.1). But include benign nevi and codes for eczema and insect bites.	Different	60	NR	Electronic health record- KSYOS-secured TDsc digital health record system	GP
VanDerHeijden 2011	The GPs selected patients with skin conditions that were in their opinion suitable for a TD from new or existing dermatological patients. Pigmented skin lesions were not recommended for tele dermatology	Different	43	Government	Electronic health record- Ksyos-secured TDsc	GP

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
	by dermatologists. TDs that had not been actively closed by the GP were excluded.				digital health record system	
Van der Heijden 2013	All consecutive patients who presented with a pigmented skin lesion and who were suitable for a teledermatology consultation. Urgent cases were excluded.	NR- likely different	15	NR	Primary	GP
Vano Galvan 2011	Patients seeking dermatologic care referred from primary care dermatology consultation and emergency department.	Different	4	NR	Primary	Primary care dermatology consultation and from emergency department
Veronese 2021	The image acquisition was done in the surgery room before excision for malignant melanoma and atypical nevi, and during routine dermatological visits for benign lesions.	Same	NR	None	Primary and secondary-training images from open-source collection of dermatological images from the ISIC (International Skin Imaging Collaboration) archive	Unclear
Veronese 2022	NR	Different	NR	None	Primary	Simulated experiment using students as proxy for GP referral
Vestergaard 2020	Adult patients could be included after giving informed consent.	Different	10	Research/ Government	Primary	GP
Wang 2020	NR	NR- likely different	25	Government grant	Medical record review	Referring provider

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
Warshaw 2009	High risk and patients at low risk for developing skin neoplasms. Neoplasms were defined as circumscribed, non-eczematous and non-papulosquamous lesions. Exclusion criteria included: individuals requesting or referred for skin tag removal only; individuals presenting for excision or treatment of a neoplasm previously biopsied; individuals requiring biopsy for papulosquamous or eczematous conditions (non-neoplastic); and in ability to comprehend and give informed consent.	Different	34	Government/ Research	Primary	Low-risk- non dermatology healthcare providers High risk taken from already enrolled patients
Whited 2013 (NCT00488293)	Eligible participants were adult patients being referred to one of the dermatology services from the remote sites of primary care. Patients were excluded if they had more than one skin condition for which they were being referred, did not have a visible or photographable skin condition, requested a full body examination, were unable to read or speak English, failed a single-question literacy assessment, had an emergent skin condition, had a pending dermatology clinic appointment within the next nine months, had previously enrolled in this study, or had an impending move from the area in the next nine months.	NR- likely different	NR	Government	Primary	Primary care provider
Wu 2021	Patients referred by PCP for dermatology evaluation.	Different	12	None	Secondary	Primary care provider
Zink 2017a	Inclusion criterion was a visible skin finding whereas exclusion criteria were previously diagnosed skin diseases.	Different	NR	Industry	Primary	NR but patients presenting to the outpatient clinic of a university department of dermatology therefore likely

First Author and year (Clinical trial identifier)	Eligible population	Assessor	Study Length	Funding source type	Data source	Where did referral come from?
						referral from primary care.
Zink 2017b	NR	Different	NR	Industry	Primary	NR

Key: AOK-HZV – Allgemeine Ortskrankenkasse Health Insurance Database, BCC – basal cell carcinoma, CEDMEG – Centre d’Expertise Dermatologique pour le Medecins Generalistes, FTF – face to face, GP – general practitioner, ICD – international classification of disease, MM – metastatic melanoma, n – number, NA – not applicable, NHS – National Health System, NR – not reported, PCP – primary care provider, SAF – store and forward, SCC – squamous cell carcinoma, SFVAHCS – San Francisco Veterans Affairs Health Care System, TD – teledermatology, TDsc – teledermatoscopy, VA– veterans affairs, VLC – virtual lesion clinic, VVC – veterans affairs video connect.

Figure a 4 Risk of bias summary for RCTs: review authors' judgement about each risk of bias item for each included study

		Risk of bias domains					
		D1	D2	D3	D4	D5	Overall
Study	Armstrong 2018	+	-	+	X	X	X
	Bowns 2006	+	+	X	-	+	X
	Eminovic 2009	+	+	+	-	-	-
	Ferrandiz 2017	-	+	-	-	+	-
	Koch 2024	-	-	+	-	+	-
	Lopez-Liria 2022	X	+	+	-	+	X
	Piette 2017	+	+	X	X	-	X
	Romero 2006	+	+	X	-	-	X
	Romero 2010	+	-	-	-	-	-
	Whited 2013	+	+	-	-	-	-

Domains:
D1: Bias arising from the randomization process.
D2: Bias due to deviations from intended intervention.
D3: Bias due to missing outcome data.
D4: Bias in measurement of the outcome.
D5: Bias in selection of the reported result.




Judgement
 High
 Some concerns
 Low

Figure A 5 Risk of bias summary for non-RCTs: review authors' judgement about each risk of bias item for each included study

Study	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Abdul-Gafoor 2024	+	-	+	+	!	-	-	!
Altieri 2015	+	+	+	+	+	-	+	-
Arzberger 2016	+	+	+	+	+	!	+	!
Baba 2005	+	+	+	+	+	!	+	!
Borve 2012	+	+	+	+	+	-	+	-
Borve 2013	+	+	+	+	+	-	+	-
Borve 2015	!	+	+	+	!	-	+	!
Bowns 2006b	+	+	+	+	+	-	+	-
Carter 2017	!	+	+	+	+	-	+	!
Castillo 2022	!	+	+	+	+	-	+	!
Chang 2021	!	+	!	+	?	!	+	!
Chansky 2017	!	+	+	?	?	!	+	!
Cheng 2022	!	+	+	?	?	-	+	!
Clarke 2023	+	+	+	+	+	+	+	+
Congalton 2015	!	+	!	+	!	-	+	!
Costin 2020	+	+	+	+	!	-	+	!
Creighton-Smith 2017	-	+	+	+	+	-	+	-
Damsin 2023	!	+	+	+	+	-	+	!
Damsin-Thomas 2020	!	-	!	+	!	-	-	!
de Giorgi 2016	+	!	+	+	+	-	+	!
Di Stefani 2007	+	+	+	+	+	-	+	-
Ebner 2008	+	+	+	+	+	-	+	-
Fabbrocini 2008	+	+	+	+	+	+	+	+
Faucon 2022	+	+	+	+	!	-	+	!
Fazil-Jaber 2023	!	!	+	+	-	-	+	!
Feigenbaum 2017	!	+	+	+	+	-	+	!
Ferrandiz 2007	+	+	+	+	+	-	+	-
Ferrandiz 2012	!	+	+	+	+	+	+	!
Ferrara 2004	+	+	+	+	+	-	+	-
Flemingham 2023	!	+	+	+	+	-	+	!
Ford 2015	-	+	+	+	+	-	+	-
Fujimoto 2024	+	-	+	+	+	-	+	-
Gao 2023	!	+	+	+	?	-	+	!
Gatica 2015	!	+	+	+	!	-	+	!
Heffner 2009	+	+	+	+	+	-	+	-
Holmes 2020	+	+	+	+	+	-	+	-
Hsiao 2008	-	!	+	+	+	-	+	!

Domains:
 D1: Bias due to confounding.
 D2: Bias due to selection of participants.
 D3: Bias in classification of interventions.
 D4: Bias due to deviations from intended interventions.
 D5: Bias due to missing data.
 D6: Bias in measurement of outcomes.
 D7: Bias in selection of the reported result.

Judgement
 ! Critical
 ! Serious
 - Moderate
 + Low
 ? No information

Study	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Hunt 2020	⊖	+	+	+	+	+	+	⊖
Hussain 2023	⊗	⊗	+	+	+	+	+	⊗
Ilie 2022	+	+	+	+	+	-	+	-
Jariwala 2021	-	+	+	+	⊗	-	+	⊗
Jones 2021	+	+	+	⊗	⊖	-	+	⊖
Joseph 2023	⊗	+	+	+	+	-	+	⊗
Kahn 2013	⊖	+	+	+	+	-	-	⊖
Kazi 2020	⊖	+	+	+	⊗	+	+	⊗
Keleshian 2017	⊖	+	+	+	?	-	+	⊖
Kim 2020	⊖	+	+	+	?	+	+	⊖
Kips 2020	+	+	+	+	+	-	+	-
Klaz 2005	⊖	+	+	+	?	-	+	⊖
Knol 2006	+	+	+	+	⊖	-	+	⊖
Kroemer 2008	+	+	+	+	+	-	+	-
Kroemer 2011	+	+	+	+	⊗	-	+	⊗
Lasierra 2012	+	+	+	+	⊗	-	+	⊗
Lepe 2003	+	+	+	+	+	-	+	-
Lim 2012	⊖	+	+	+	⊗	-	+	⊖
Lowe 2021	⊖	⊗	⊗	+	?	⊗	+	⊖
Mahendran 2005	+	+	+	+	⊖	-	+	⊖
Marchell 2017	+	+	+	+	?	-	-	⊗
Marwaha 2019	-	+	+	+	⊖	-	+	⊖
Marwaha 2021	-	+	+	+	+	-	+	-
Massone 2005	+	+	+	+	+	-	+	-
Massone 2006	+	+	+	+	+	-	+	-
Massone 2007	+	+	+	+	+	-	+	-
Massone 2021	+	⊗	+	+	+	⊖	+	⊖
May 2008	⊖	⊗	+	+	+	+	+	⊖
McGoey 2015	⊖	+	+	+	+	+	+	⊖
McKoy 2004	+	+	+	+	⊖	-	+	⊖
McLaughlin 2006	+	-	+	+	+	+	+	-
Mofid 2007	-	+	-	+	+	-	+	-
Moreno-Ramirez 2006	+	+	+	+	+	-	+	-
Moreno-Ramirez 2007	+	+	+	+	⊖	-	+	⊖
Morton 2011	⊖	+	-	+	⊖	-	+	⊖
Naka 2018	⊖	+	+	+	⊗	-	+	⊖
Nami 2015	+	+	+	+	+	-	+	-

Domains:
D1: Bias due to confounding.
D2: Bias due to selection of participants.
D3: Bias in classification of interventions.
D4: Bias due to deviations from intended interventions.
D5: Bias due to missing data.
D6: Bias in measurement of outcomes.
D7: Bias in selection of the reported result.

Judgement
⊖ Critical
⊗ Serious
- Moderate
+ Low
? No information

Study	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Nizar 2024	⊗	+	+	+	?	⊗	+	⊗
O'Connor 2017	+	+	+	+	+	-	+	-
Oztas 2004	+	+	+	+	⊗	-	+	⊗
Palamaras 2022	⊗	?	?	?	?	⊗	+	⊗
Papadimitriou 2021	+	+	+	+	+	-	+	-
Piccolo 2004	+	+	+	+	+	+	+	+
Pizzichetta 2004	+	+	+	+	⊗	+	-	⊗
Rios-Yuil 2012	+	+	+	+	+	-	+	-
Rogers 2022	+	+	+	+	+	-	+	-
Rubegni 2011	+	+	+	+	+	-	+	-
Ruiz 2009	+	+	+	+	+	-	+	-
Sahin 2024	⊗	+	+	+	+	+	-	⊗
Schultz 2023	⊗	+	+	+	+	+	+	⊗
Seiger 2020	⊗	+	+	+	⊗	-	+	⊗
Senel 2013	+	+	+	+	+	-	+	-
Senel 2014	+	+	+	+	+	-	+	-
Shalmon 2023	+	+	+	+	⊗	⊗	+	⊗
Shapiro 2004	+	+	+	+	⊗	-	+	⊗
Shin 2014	+	+	+	+	+	-	+	-
Sola-Ortigosa 2020	+	+	+	+	+	-	+	-
Taberner Ferrer 2009	+	+	+	+	⊗	-	+	⊗
Tan 2009	+	+	+	+	+	-	+	-
Taslidere 2022	+	+	+	+	+	-	+	-
Taslidere 2023	+	+	+	+	+	-	+	-
Tensen 2022	+	+	+	+	⊗	-	+	⊗
Van der Heijden 2011	+	+	+	+	+	-	+	-
van der Heijden 2013	+	-	+	+	⊗	-	+	⊗
Vano-Galvan 2011	+	+	+	+	+	-	+	-
Veronese 2021	+	+	+	+	+	-	+	-
Veronese 2022	+	+	+	+	+	⊗	+	⊗
Vestergaard 2020	+	+	+	+	+	-	+	-
Wang 2020	-	+	+	+	+	-	+	-
Warsaw 2009	+	+	+	+	+	-	+	-
Wu 2021	⊗	+	+	+	+	-	+	⊗
Zink 2017a	+	+	+	+	+	-	+	-
Zink 2017b	+	+	+	+	+	-	+	-

Domains:
 D1: Bias due to confounding.
 D2: Bias due to selection of participants.
 D3: Bias in classification of interventions.
 D4: Bias due to deviations from intended interventions.
 D5: Bias due to missing data.
 D6: Bias in measurement of outcomes.
 D7: Bias in selection of the reported result.

Judgement
 ⊗ Critical
 ⊗ Serious
 - Moderate
 + Low
 ? No information

Table A 6 Wait times in suspected cancer populations

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FT F (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
Suspected melanoma population												
SAF vs FTF												
Schultz 2023	Melanoma	SAF_DSC	45				11.4, (Median 10, IQR 6 to 14)	FTF	80			13.9, (Median 13, IQR 7 to 17)
SAF_imageclinic vs FTF												
Congalton 2015	Melanoma	SAF_imageclinic_DSC_MSC	310	Median 9				FTF	NR	Median 26.5		
Combined_post vs combined_pre												
Sahin 2024	Melanoma	Combined_post	16		-	-	49.7 (20.7 to 66.4)	Combined_pre	28	-	-	56.7 (46.5 to 68.5)
Suspected non-melanoma population												
SAF vs FTF												
Ferrandiz 2007	Mixed	SAF_MSC	130	-	-	-	26.1 (95% CI 24.5 to 27.7)	FTF	92	-	-	60.6 (95% CI 56.2 to 64.9)
Suspected cancer (mixed) population												
SAF vs FTF												
Börve 2015	Mixed	SAF_DSC	816	0.16 (0.0 to 1.9)	-	-	-	FTF_DSC_histo	746	5 (0.0 to 82)	-	-
Börve 2015	SCC	SAF_DSC	17	-	Median 13 [‡]	-	Median 15 days	FTF_DSC_histo	11	Median 21 [‡]	-	Median 48

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
Börve 2015	SCC in situ	SAF_DSC	7	-	Median 13 [‡]	-	Median 13 days	FTF_DSC_histo	11	Median 96 [‡]	-	Median 118
Börve 2015	BCC	SAF_DSC	109	-	Median 28 [‡]	-	Median 34	FTF_DSC_histo	115	Median 34 [‡]	-	Median 89
Börve 2015	Benign	SAF_DSC	229	-	-	-	Median 55	FTF_DSC_histo	323	-	-	Median 46
Börve 2015	Malignant	SAF_DSC	587	-	-	-	Median 36	FTF_DSC_histo	423	-	-	Median 85
Creighton-Smith 2017	Mixed	SAF_DSC	434	-	-	47.3	112.7 [#]	FTF	587	-	45.5	113 [#]
Damsin 2023	Mixed	SAF_DSC	44	-	-	-	9 [‡]	FTF	NR	-	-	81 [‡]
Gao 2023	Mixed	SAF_DSC	310	1				FTF	NR	120		
Hsiao 2008	Mixed	SAF	92	4 (95% CI 3 to 5)	-	38 (30 to 47, SD 41)	104 (SD 67, 95% CI 90 to 118)	FTF	77	48 (95% CI 40 to 57)	57 (45 to 68, SD 52)	125 (SD 63, 95% CI 111 to 140)
Hunt 2020	Mixed	SAF_MSC_DSC	75	Median 8			Median 35.5	FTF	75	Median 13		Median 35
Kahn 2013	Mixed	SAF	293	-	-	9.7		FTF	293	-	13.8	-
Kahn 2013	SCC	SAF	93	-	-	8.9 (95% CI 5.6 to 12.2, IQR 5 to 11)	-	FTF	93	-	14.1 (95% CI 11.3 to 16.9, IQR 8.0 to 15.0)	-

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
Kahn 2013	BCC	SAF	218	-	-	10 (95% CI 8.1 to 11.9, IQR 5.5 to 13.5)	-	FTF	218	-	13.5 (95% CI 12 to 15, IQR 9 to 15)	-
Marwaha 2019	Mixed	SAF_DSC_MSC	25,041	0.2 (0.0 to 49)	-	-	-	FTF	21,911	7.3	-	-
Moreno-Ramirez 2007	Mixed	SAF_MSC	2009	2.5 (95% CI 0 to 6)	12.3 (2 to 31)	-	-	FTF	530	88.6 (95% CI 38.4 to 138.8)	-	-
Shapiro 2004	Mixed	SAF	49	7, maximum 16^	-	-	-	FTF	49	1 month	-	-
Wang 2020	Mixed	SAF	27	-	-	Median 26.7 (SD 37.2)	80.7 (SD 79.8)	FTF	280	-	65.4 (SD 72.5)	116.9 (SD 86.6)
SAF_imageclinic vs FTF												
Damsin 2020	Mixed (High priority lesions)	SAF_image clinic_DSC_MSC	8	-	Median 11	-	-	-	NR	Median 84	-	-
Lim 2012	Mixed	SAF_image clinic_DSC_MSC	200	39 days (0 to 152)	-	-	-	FTF	100	114 (5 to 223)	-	-
May 2008	Melanoma	SAF_image clinic_DSC	14	Urgent-Median 14 (1 to 34); Soon-			Urgent-median 21.5 (7 to 47, 100% seen within	FTF	38	Urgent-median 24 (6 to 59); Soon - median 44		Urgent-median 41 (14 to 119, 77% seen within 62

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
				68 (1 patient)			62 days); Soon- 68 (1 patient failed to attend first FTF, 0% seen within 62 days)			(8 to 129); Routine- median 130 (77 to 177)		days); Soon - median 51 (18 to 130, 67% seen within 62 days); Routine- median 136 (98 to 178, 0% seen within 62 days)
May 2008	SCC	SAF_image clinic_DSC	6	Urgent- median 13.5 (11 to 19)			Urgent- median 56 (37 to 67, 60% seen within 62 days)	FTF	37	Urgent- median 24 (1 to 42); Soon - median 34 (19 to 110); Routine- median 125.5 (28 to 179)		Urgent- median 73 (1 to 248, 40% seen within 62 days); Soon - median 82.5 (19 to 268, 28% seen within 62 days); Routine- median 125.5 (46 to 343, 25% seen within 62 days)

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
Morton 2011	SCC	SAF_image clinic_DSC	289	28	-	-	-	FTF	188	50	-	-
Morton 2011	BCC	SAF_image clinic_DSC	289	35	-	-	-	FTF	188	58	-	-
SAF_imageclinic vs SAF												
Jones 2021	Mixed	SAF_image clinic_DSC_pre	400	Median 50 (17 to 313, SD 43)	-	-	Median 112 (30 to 378, SD 68)	SAF_DSC_post	481	Median 5 (0 to 16, SD 2.6)	-	Median 21.5 (0 to 236, SD 52.4)
Jones 2021	Mixed	SAF_image clinic_DSC_post	108	Median 42 (16 to 184, SD 29.3)	-	-	Median 94 (25 to 194, SD 48.1)	-	-	-	-	-
FTF_post vs FTF_noTD												
Costin 2019	Mixed	FTF_post	68	54	-	-	-	FTF_noTD	NR	139	-	-

Key: BCC – basal cell carcinoma, CI – confidence interval, DSC – dermatoscopy, FTF – face-to-face, GP – general practitioner, IQR – interquartile range, MSC – macroscopy, n – number, NR – not reported, PCP – primary care practitioner, SAF – store and forward, SCC – squamous cell carcinoma, SD – standard deviation, TD – teledermatology

* unless specified otherwise, † in those requiring surgery, ^ most patients seen within 7 days, # wait time to biopsy + wait time from biopsy to definitive treatment, ‡ wait time from SAF report to surgery

Table A 7 Wait times in mixed dermatology populations

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
SAF vs FTF												
Bowns 2006a	Mixed	SAF	92	13 (SD 11.5)	-	-	-	FTF	73	67 (SD 27.6)	-	-
Carter 2017	Mixed	SAF	79	Median 0.5 (95% CI 0.2 to 0.9)	-	-	Median 3 (IQR 1 to 35.5)	FTF_pre	173	Median 70 (IQR 33.2 to 83.0)	-	Median 73.5 (IQR 38.2 to 111.5)
Carter 2017	Mixed	Combined_post	144	Median 1	-	-	Median 36			-	-	-
Castillo 2022	Mixed	SAF	438	Median 3	-	-	-	FTF	1540	Median 16 (working days, adjusted to 21)	-	-
Castillo 2022	Mixed	LI	266	Median 5	-	-	-			-	-	-
Holmes 2020	Mixed	SAF	127	1.6 (SE 0.3)	-	-	-	FTF	NR	13.9 (SE 0.9)	-	-
Jariwala 2021	Mixed	SAF	153	Median 0.2 (IQR 0.03 to 2.9)	-	-	-	FTF	153	Median 83.6 (IQR 19.7 to 159.7)	-	-
Joseph 2023	Mixed	Combined_post	NR	60.8	-	-	-	FTF_pre	NR	91.2	-	-
Kim 2020	Mixed	SAF	215	0.7	-	-	-	FTF	NR	1	-	-

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
McGoey 2015	Mixed	SAF	309	Median 2.1 hours (0.1 to 5.6)				FTF	NR	4 months [#]		
McKoy 2004	Mixed	SAF	52	Median 1.9	-	-	-	FTF	54	52	-	-
Mofid 2007	Mixed	LI	52	Less than 2 days 15%, 2 to 7 days 19%, 1 to 3 weeks 21%, 3 to 6 weeks 27%, 6+ weeks 17%	-	-	-	FTF	46	Less than 2 days-9%, 2 to 7 days 22%, 1 to 3 weeks 22%, 3 to 6 weeks 31%, 6+ weeks 16%	-	-
Naka 2018	Mixed	SAF_DSC	499	1	Median 28 (7 to 143)	-	-	FTF_pre	1258	Median 77 (1 to 353) Paediatric subgroup-75 (Calafiore 2023)	-	-
Naka 2018	Mixed	Combined_post	1127	Paediatric subgroup-57 (Calafiore 2023)	-	-	-	FTF_post	628	Median 104 (1 to 300), Paediatric subgroup-94	-	-

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
										(Calafiore 2023)		
Piette 2017	Mixed	SAF	53	Median 4	Median 27	-	-	FTF	50	Median 40	-	-
Seiger 2020	Mixed	SAF	188	1.8	Median 37.3	-	-	FTF	188	54.1	-	-
Taberner Ferrer 2009	Mixed	SAF	158	0.8 (SD 1.1)	-	-	-	FTF	129	36.1 (SD 29.6)	-	-
Van Der Heijden 2011	Mixed	SAF	37207	0.2 (0 to 49)	-	-	-	FTF	NR	(42 to 56)	-	-
Wang 2020	Mixed	SAF	1698	0.5 (SD 0.7)	14.3	-	-	FTF	16703	34.7 (SD 32.8, IQR 11 to 49)	-	-
Wu 2021	Mixed	SAF	285	-	-	-	10.8	FTF_noTD	285	-	-	44.1
SAF_imageclinic vs FTF												
Palamaras 2022	Mixed	SAF_imageclinic_DS_C_MSC	8352	35	-	-	-	FTF	NR	210	-	-

Key: derm – dermatologist, DSC – dermatoscopy, FTF– face-to-face, GP – general practitioner, IQR – interquartile range, LI – live interactive, MSC – macroscopy, n – number, NR – not reported, PCP – primary care practitioner, SAF – store and forward, SD – standard deviation, SE – standard error, TD – teledermatology.

* unless specified otherwise, # based on routine wait times.

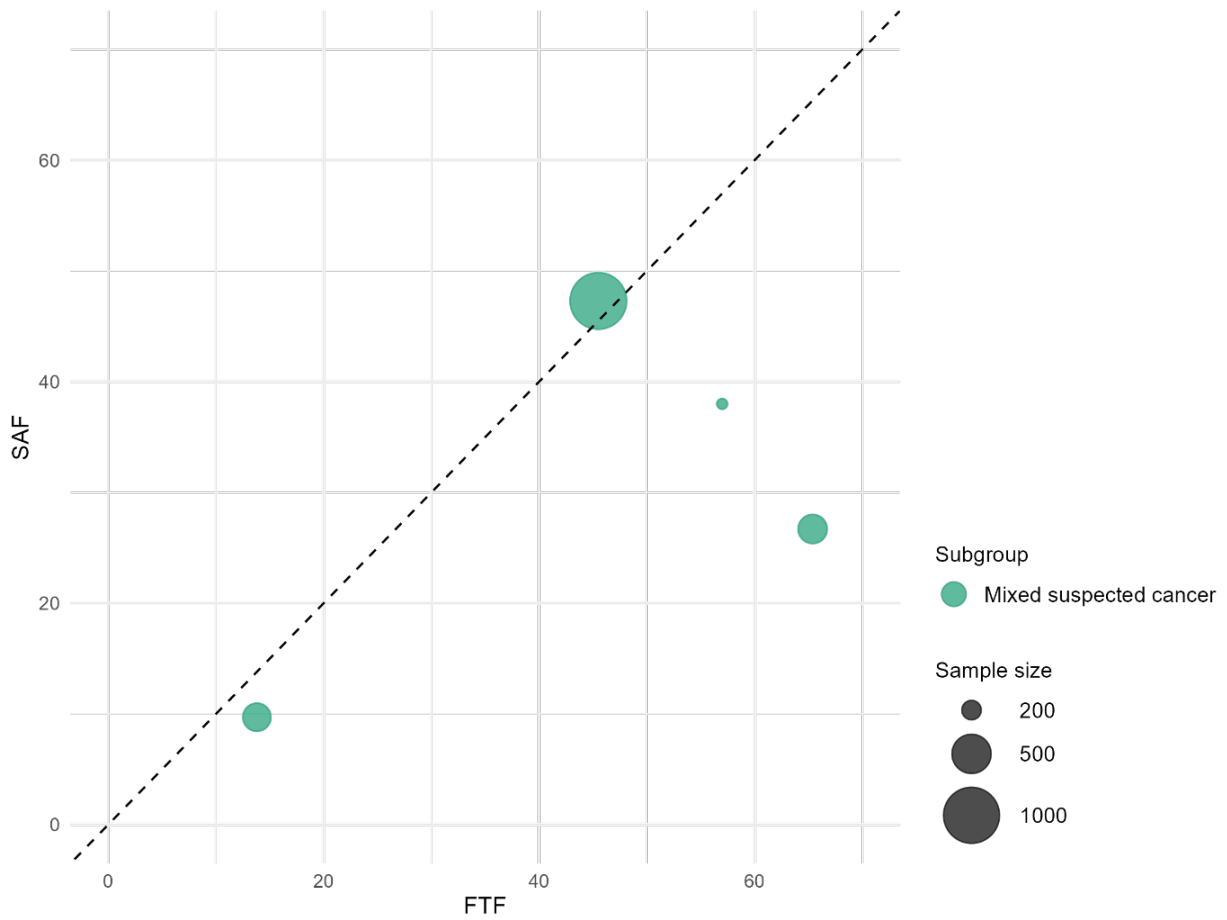
Table A 8 Wait times in inflammatory/infectious conditions populations

First Author, Year	Condition	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait for FTF post-SAF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)	Study arm	n	Wait time GP to initial SAF/FTF (mean days*)	Wait to biopsy (mean days*)	Wait for definitive treatment (mean days*)
SAF vs FTF												
Chansky 2017	Mixed	SAF	60	1.4 (SD 3.1)	-	-	-	FTF	NR	13.4 (SD 8.9)	-	-
Klaz 2005	Mixed	SAF	435	10 (SD 0.5)	-	-	-	FTF	NR	x2 longer	-	-
SAF_imageclinic vs FTF												
Lowe 2021	Mixed	SAF_imageclinic_DSC_MSC	2096	56	-	-		FTF	16703	252	-	

Key: DSC – dermatoscopy, FTF– face-to-face, GP – general practitioner, MSC – macroscopy, n – number, NR – not reported, SAF – store and forward, SD – standard deviation.

* unless specified otherwise.

Figure A 6 Wait time to biopsy in days



Key: FTF – face-to-face, SAF – store and forward.

Footnote: *Time in days (median or mean) to event; points below the dotted line reflect longer waiting time in the FTF intervention arm.

Table A 9 Avoided appointments

Study ID	Study arm	Avoided appointments (%)	Study definition
Suspected cancer (mixed) population			
Bowns 2006b	SAF	30	<ul style="list-style-type: none"> Did not need to see FTF
Ferrandiz 2017	SAF	54.9*	<ul style="list-style-type: none"> Inverse of percentage of patients referred for in-person evaluation
	SAF_DSC	79.8*	
Ford 2015	SAF_DSC	44.1	Patients with recommendations for: <ul style="list-style-type: none"> No action required No action required watch and wait Management as per local guidelines
Hsiao 2008	SAF	14.1	<ul style="list-style-type: none"> Patients not requiring FTF before surgery
Jones 2021	SAF_imageclinic_DSC_pre	77.3	<ul style="list-style-type: none"> Patients for whom a public hospital specialist appointment was not made
	SAF_imageclinic_DSC_post	77.8	
	SAF_DSC_post	91.5	
Lim 2012	SAF_imageclinic_DSC_MSC	94	<ul style="list-style-type: none"> Patients who did not require a subsequent FTF clinic assessment to establish diagnosis
Mahendran 2005	SAF	13	<ul style="list-style-type: none"> Required reassurance only and would not need to be seen FTF 9% also did not require any action but needed review after 3-4 months to monitor changing lesion 33% could have been sent directly for minor operation without FTF
Marwaha 2019#	TD	49	<ul style="list-style-type: none"> Office visit not required
	FTF_oving derm	71	
Moreno-Ramirez 2006	SAF	52.5	<ul style="list-style-type: none"> Inverse of referral rates yielded by clinical teleconsultations
	SAF_DSC	60.7	
Moreno-Ramirez 2007	SAF_MSC	51.2	<ul style="list-style-type: none"> SAF: Patients not referred to FTF clinic FTF: Proportion of patients presenting with benign lesions after the in vivo examination who were referred to the FTF clinic and who did not require any intervention and were discharged from the clinic
	FTF	28.8	
Morton 2011	SAF_imageclinic_DSC	72	<ul style="list-style-type: none"> Referrals diverted away from the conventional consultant-led skin cancer clinic
Vestergaard 2020	SAF_DSC_GP	19	<ul style="list-style-type: none"> SAF: Patients where management decision was to return to GP FTF: Dismissed without treatment
	SAF_DSC_dermatologist	31	
	SAF_DSC	32.6	

Study ID	Study arm	Avoided appointments (%)	Study definition
	FTF_DSC_histo	38	
Suspected non-melanoma cancer population			
Cheng 2022	SAF	72*	<ul style="list-style-type: none"> Inverse of requests for FTF follow-up
	FTF	97*	
Mixed dermatology population			
Börve 2012	SAF	26.3	<ul style="list-style-type: none"> Did not require FTF
Bowns 2006a	SAF	66	<ul style="list-style-type: none"> Patient with no follow-up
	FTF	38	
Carter 2017	SAF	58.2	<ul style="list-style-type: none"> Treated by TD alone
Gatica 2015	SAF	65.6	<ul style="list-style-type: none"> SAF: Could be followed up in primary care FTF: Could continue treatment in primary care
	FTF	69.6	
Holmes 2020	SAF	65	<ul style="list-style-type: none"> FTF evaluation was not initially required and a definitive plan of care was delivered to the PCP through remote consultation alone
Jariwala 2021	SAF	58.8	<ul style="list-style-type: none"> Seen by TD alone with no subsequent appointment within 6 months
Joseph 2023	SAF	38	<ul style="list-style-type: none"> Recommendations via e-consult and subsequent management by PCP were sufficient
Keleshian 2017	SAF_MSC	53	<ul style="list-style-type: none"> Non-malignant lesions that did not require dermatology follow-up
Kim 2020	SAF	73	<ul style="list-style-type: none"> eConsults resolved electronically
Koch 2024	SAF	53*	<ul style="list-style-type: none"> Inverse of required a physical referral to dermatologist
Lasierra 2012	SAF	42	<ul style="list-style-type: none"> Received reliable diagnosis through TD and no FTF visit was required to confirm diagnosis
McKoy 2004	SAF	58	<ul style="list-style-type: none"> Dermatologist felt comfortable enough to diagnose and/or manage initially without a FTF visit
Naka 2018	SAF_DSC	84.4	<ul style="list-style-type: none"> Patient not recommended for FTF appointment
Palamaras 2022	SAF_imageclinic_DSC_MSC	56.8	<ul style="list-style-type: none"> Returned for GP with no treatment required or with a management plan for primary care to enact
Piette 2017	SAF	47.2	<ul style="list-style-type: none"> Dermatologist did not need to see the patient in FTF consultation
Romero 2010	SAF	58.4	<ul style="list-style-type: none"> FTF consultation not required
Seiger 2020	SAF	53.7	<ul style="list-style-type: none"> FTF not recommended (68.1%) and dermatology visit did not occur within 90 days
Vano-Galvan 2011	SAF	42	<ul style="list-style-type: none"> Patient managed by TD (discharge, PCP review or another TD review) without FTF consultation
Wang 2020	SAF	80	<ul style="list-style-type: none"> eConsult patients who did not require a specialty appointment

Study ID	Study arm	Avoided appointments (%)	Study definition
Whited 2013	SAF_MSC	38.5	<ul style="list-style-type: none"> Patients who were not see in a FTF dermatology clinic visit
Wu 2021	SAF	71*	<ul style="list-style-type: none"> Managed through TD alone
Zink 2017b	SAF	55.6	<ul style="list-style-type: none"> Did not require FTF consultation
	FTF	42.6	
Inflammatory/infectious conditions population			
Lowe 2021	SAF_imageclinic_DSC_MSC	80	<ul style="list-style-type: none"> Directly discharged back to referring clinician with advice and guidance regarding appropriate management
Marwaha 2021 [#]	SAF	76	<ul style="list-style-type: none"> Office visits not required
	FTF_roving derm	87	
Wu 2021	SAF	78*	<ul style="list-style-type: none"> Inflammatory conditions managed through TD alone

Key: derm – dermatologist, DSC – dermatoscopy, FTF– face-to-face, GP – general practitioner, MSC – macroscopy, PCP – primary care practitioner, SAF – store and forward, TD – teledermatology.

Footnote: * Inverse = 100 – reported value, # Marwaha 2019 and Marwaha 2021 compared SAF to referral with a FTF roving dermatologist within a GP setting. Results presented here but not within main discussion as not in hospital setting.

Change in rate of referrals – Suspected melanoma population

A single US study compared the number of weekly appointments for new in-person referrals with telemedicine referrals during the COVID-19 pandemic.⁽¹⁴¹⁾ It reported a mean decrease of 4.0 in-person appointments from pre- to post-COVID-19 pandemic (4.8 to 0.8), defined as January 2020 versus March to May 2020, compared to a mean increase of 0.7 telemedicine appointments (0.0 to 0.7). However, numbers of appointments were taken from dermatologist surveys rather than referral lists, and in the context of a pandemic data from this period may be unrepresentative therefore caution must be taken interpreting this report.⁽¹⁴¹⁾

Table A 10 GRADE – suspected melanoma population

Population: Suspected melanoma Intervention: Teledermatology Comparison: Usual care, FTF dermatology, or histology				
Outcome	Number of participants (studies)	Summary effect estimate	Interpretation of effect	GRADE
Risk of incorrect diagnosis	36 (1)	Malignant melanoma: RR - 0.67 (95% CI: 0.39 to 1.14)	No statistically significant difference in risk of incorrectly diagnosing malignant melanoma compared with FTF.	⊕⊕⊕○ ^a
Diagnostic percentage concordance	247 (2)	<u>TD vs FTF (1 study):</u> 90.5% <u>TD vs histology (1 study):</u> 83%	There was diagnostic concordance between TD and FTF and TD and histology evaluation.	⊕⊕○○ ^{a,b}
Safety	919 (5)	Results could not be pooled. Details of misdiagnosis, overdiagnosis and missed diagnoses presented in Error! Reference source not found..	Misdiagnosis and overdiagnosis can occur with TD. Direction of effect consistent – no evidence to suggested TD is significantly worse than FTF evaluation.	⊕⊕⊕○ ^a
Explanations : ^a Downgrade one level due to imprecision. Participant numbers low. Could not synthesise data. ^b Downgrade one level for high risk of bias due to potential for confounding.				

Key: ⊕○○○ - very low certainty; ⊕⊕○○ - low certainty; ⊕⊕⊕○ - moderate certainty.

Table A 11 GRADE – suspected NMSC population

Population: Suspected NMSC Intervention: Teledermatology Comparison: Usual care, FTF dermatology or histology				
Outcome	Number of participants (studies)	Summary effect estimate	Interpretation of effect	GRADE
Avoided appointments	136 (1)	72% avoided appointment with TD	Patients undergoing TD assessment can avoid the need for FTF follow-up. Only one study available so limited ability to draw definitive conclusions in this population and applicability to Irish context.	⊕⊕○○ ^{a,b}
Risk of incorrect diagnosis	72 (1)	RR: 1.51 (95% CI: 0.99 to 2.31)	No statistically significant difference in risk of incorrectly diagnosing NMSC.	⊕⊕○○ ^{a,b}
Diagnostic concordance between TD and FTF	819 (2)	<u>TD vs FTF (1 study):</u> SAF: 93% SAF_DSC: 98% <u>TD and FTF vs histology (1 study):</u> SAF vs histology: 65% FTF vs histology: 83%	There is diagnostic concordance between TD and FTF.	⊕⊕○○ ^{a,b}
Explanations : ^a Downgrade one level due to high risk of bias as a result of potential confounding. ^b Downgrade one level due to imprecision. Participant numbers low for avoided appointments and risk of incorrect diagnosis outcome. Wide confidence interval in risk of incorrect diagnosis outcome. TD concordance has a wide range.				

Key: ⊕○○○ - very low certainty; ⊕⊕○○ - low certainty; ⊕⊕⊕○ - moderate certainty.

Table A 12 GRADE – Suspected cancer (mixed) population

Population: Suspected cancer (mixed) Intervention: Teledermatology Comparison: Usual care, FTF dermatology				
Outcome	Number of participants (studies)	Summary effect estimate	Interpretation of effect	GRADE
Avoided appointments	5,618 (11)	30% to 94% avoided appointments using TD	TD shows ability to avoid the need for FTF appointments.	⊕○○○ ^{a,b}
Risk ratio of incorrect diagnosis with TD vs FTF	4,546 (9)	RR: 1.27 (1.15 to 1.40) I ² = 26%	Risk of an incorrect diagnosis was 27% higher with TD compared with FTF dermatology.	⊕⊕⊕○ ^c
Percentage diagnostic concordance between TD and FTF	12,793 (14)	75% (95% CI: 68% to 81%) I ² = 96%	There is diagnostic concordance between TD and FTF diagnosis. However, true magnitude of effect is uncertain due to heterogeneity in studies.	⊕⊕○○ ^{b,c}
Safety	919 (14)	Results could not be pooled. Details of incidental detection rates, and misdiagnoses, clinically significant errors are presented in Error! Reference source not found.	Misdiagnosis and clinically significant errors can occur with TD. Direction of effect consistent, no major outliers. No evidence available to conclude a significant difference between TD and FTF.	⊕⊕⊕○ ^c
<p>Explanations :</p> <p>^a Downgrade two levels due to critical and serious risk of bias in more than half of the studies. High risk of bias is due to potential for confounding, and missing data.</p> <p>^b Downgrade one level due to inconsistency – variability in effect reported across studies driven by heterogeneity in study designs and local study contexts.</p> <p>^c Downgrade one level due to high risk of bias.</p>				

Key: ⊕○○○ - very low certainty; ⊕⊕○○ - low certainty; ⊕⊕⊕○ - moderate certainty.

Table A 13 GRADE – Mixed dermatology population

Population: Mixed dermatology Intervention: Teledermatology Comparison: Usual care, FTF dermatology				
Outcome	Number of participants (studies)	Summary effect estimate	Interpretation of effect	GRADE
Avoided appointments	73,421 (22)	13% to 84% avoided appointments using TD	TD shows ability to avoid the need for FTF appointments.	⊕○○○ ^{a,b}
Risk ratio of incorrect diagnosis with TD vs FTF	231 (3)	Results could not be pooled due to heterogeneity in the comparators. 0.85 (0.57 to 1.27) 1.30 (0.91 to 1.86) 1.43 (1.15 to 1.78)	There is variation in the direction of effect.	⊕○○○ ^{b,c,d}
Percentage diagnostic concordance between TD and FTF	8,819 (31)	78% (95% CI: 74-81%) $I^2 = 91\%$	There is diagnostic concordance between TD and FTF diagnosis. However, true magnitude of effect is uncertain due to heterogeneity in studies	⊕⊕⊕○ ^c
Safety	101,399 (11)	Results could not be pooled. Details of misdiagnosis, incidental findings, re-referrals, and serious clinical errors are presented in Error! Reference source not found.	Misdiagnosis and clinically significant errors can occur with TD. Direction of effect consistent, no major outliers. No evidence available to conclude a significant difference between TD and FTF.	⊕⊕○○ ^a
<p>Explanations :</p> <p>^a Downgrade two levels due to critical and serious risk of bias in more than half of the studies due to confounding and missing data.</p> <p>^b Downgrade one level due to inconsistency – variability in effect reported across studies driven by heterogeneity in study designs and local study contexts.</p> <p>^c Downgrade one level due to high risk of bias.</p> <p>^d Downgrade one level due to imprecision in the effect estimate</p>				

Key: ⊕○○○ - very low certainty; ⊕⊕○○ - low certainty; ⊕⊕⊕○ - moderate certainty.

Table A 14 GRADE – Inflammatory/infectious conditions population

Population: Inflammatory/infectious conditions Intervention: Teledermatology Comparison: Usual care, FTF dermatology				
Outcome	Number of participants (studies)	Summary effect estimate	Interpretation of effect	GRADE
Avoided appointments	109,364 (3)	78% to 87% avoided appointments using TD	High proportion of avoided appointments using TD with relatively little variation in the effect across studies. Although number of participants is high, data from only 3 studies are available.	⊕⊕○○ ^{a,b}
Percentage concordance between TD and FTF	230 (2)	<u>TD vs FTF:</u> 57% to 70% Weighted average: 66.8%	There is diagnostic concordance between TD and FTF diagnosis. However, true magnitude of effect is uncertain due to heterogeneity in studies.	⊕⊕○○ ^{a,c}
Safety	2,379 (3)	Results could not be pooled. Details of re-referral rates, clinically relevant disagreement and adverse events are presented in Error! Reference source not found..	Misdiagnosis and clinically significant errors can occur with TD. Direction of effect consistent, no major outliers. No evidence available to conclude a significant difference between TD and FTF.	⊕⊕○○ ^d
<p>Explanations :</p> <p>^a Downgrade one level due to high risk of bias.</p> <p>^b Downgrade by one for indirectness – one study compares against a roving dermatologist which does not reflect Irish clinical practice.</p> <p>^c Downgrade one level due to imprecision in the effect estimate</p> <p>^d Downgrade two levels due to high risk of bias in 2 out of 3 studies.</p>				

Key: ⊕○○○ - very low certainty; ⊕⊕○○ - low certainty; ⊕⊕⊕○ - moderate certainty.

Table A 15 Percentage concordance compared with histology

Study ID	Study arm	N	Percentage concordance
Suspected melanoma population			
Fazil Jaber 2023	SAF_DSC	112	80
	FTF	138	69
Suspected cancer (mixed) population			
Börve 2013	SAF_DSC	138	55.8
Clarke 2021	SAF	62	65.0
Costin 2019	SAF_MSC	68	76.5
Creighton-Smith 2017	SAF_DSC	50	30.0
Damsin 2023	SAF_DSC	44	84.1
Fabbrocini 2008	SAF_DSC	44	52.0
Kroemer 2011	SAF_DSC	78	75.0
McLaughlin 2006	SAF_DSC	22	77.0
Moreno-Ramirez 2006	SAF	58	91.0
	SAF_DSC		94.0
Senel 2014	SAF	76	72.4
	SAF_DSC	76	89.5
Vestergaard 2020	SAF_DSC	584	56.0
Warshaw 2009	SAF_MSC	728	43.0
Suspected NMSC			
Ferrandiz 2007	SAF	130	84.6
Cheng 2022	SAF	37	64.9
Senel 2013	SAF	164	86.6
	SAF_DSC	164	93.9
Sola-Ortigosa 2020	SAF	234	90.6
	SAF_DSC	234	93.2
Mixed dermatology population			
Rios-Yuil 2012	SAF	30	66.7
Castillo 2022	SAF	71	76.1
	LI	4	50.0
Papadimitriou 2021	SAF	443	77.9
	SAF_DSC	443	91.2
Zink 2017a	SAF_DSC	26	65.4

Key: LI – live interactive; N – total sample; NMSC – non-melanoma skin cancer; SAF – store-and-forward; SAF_DSC – store-and-forward with dermatoscopy; SAF_MSC – store-and-forward with macroscopic images.

Table A 15 provides details of studies reporting percentage concordance between TD and histology. Data were available from one study in a suspected melanoma population⁽³²⁾, twelve studies^(9, 18, 20, 22, 23, 25, 30, 35, 62, 81, 83, 107, 108, 112, 123, 130) in a suspected cancer (mixed) population, four in a suspected NMSC population, and four^(17, 93, 97, 139) in a mixed dermatology population.

Appendix C Supplementary data for Chapter 6

C.1 Assumptions

Parameter inputs and the underpinning model assumptions were confirmed by expert opinion and international data from existing teledermatology pathways and guidelines. See Table A 16 for key model assumptions.

Table A 16 Assumptions

Assumption	Explanation	Source
Predicted increase in dermatology referral rates tied to population growth and demographic changes.	As trends in referral rates have been inconsistent and impacted by external factors such as COVID-19 and capacity, a conservative age-standardised referral rate was estimated.	Central Statistics Office ⁽¹⁴²⁾ NHS England ⁽¹⁴³⁾
50% of current pathway DNAs would return to the waiting list while 100% of TD DNAs would return to the waiting list.	Waiting list protocol dictates that non-urgent DNAs or DNAs where the patient does not have a high clinical and or social need are removed from the waiting list. As 50% of referrals are for suspected cancer, this proportion is assumed as having a high clinical need.	National Outpatient Waiting List Management Protocol 2022 ⁽¹⁴⁴⁾ National Clinical Programme for Dermatology Model of Care ⁽¹⁴⁵⁾
Increased new:return ratio of 1:3 attendances with TD.	It is predicted that TD may change the patient case mix seen at FTF appointments as 50% of cases are diverted back to GP care, with a shift to a potentially more chronic case mix, increasing the current ratio from 1:2.	Assumption Expert opinion
Re-referral rates are assumed similar across in both pathways.	No data were identified relating to re-referral rates to current dermatology and scant data were identified relating to re-referral after TD. Given that current referral rates will incorporate this figure, it was assumed that these rates are similar and already captured in referral data.	Assumption

Key: DNA – did-not-attend; FTF – face-to-face; GP – general practitioner; TD - teledermatology.

C.2 Targeted guideline and targeted parameter review.

The targeted country guideline review included the Netherlands, Spain, New Zealand, Australia and the UK. It consisted of searching for published teledermatology guidelines in each country's health department, dermatology associations, health service, and health technology assessment websites. These countries were identified in the Description of Technology (Chapter 2) as countries with established SAF teledermatology pathways. New Zealand was initially included due to its use of SAF with imaging clinics, however the decision to focus purely on SAF in GP practice was made after guideline review and this information was not required. Three studies that were identified through the guideline review were ultimately used in the BIA parameter analysis.^(85, 89, 146)

The eligibility criteria and search strategy for the targeted parameter review are detailed in Table A 17 and Table A 20. Searches were conducted in Medline Complete (EBSCO) including publications since January 2004 to align with Chapter 4.

Table A 17 Eligibility criteria

Item	Inclusion	Exclusion
Population	Adults and children with skin conditions being referred to a consultant dermatologist.	<ul style="list-style-type: none"> ▪ Studies involving unclear skin conditions, or mixed populations without a clear breakdown of conditions.* ▪ People with cosmetic or aesthetic concerns.
Intervention	TD for referrals from primary care (synchronous and asynchronous) with or without dermatoscopy.	<ul style="list-style-type: none"> ▪ TD used in the ongoing treatment and management of patients.[∞] ▪ TD with ultrasound. ▪ Referral from institutions such as long-term care facilities and prisons. ▪ Referrals from population screening programmes. ▪ Self-referred patients.^Y ▪ Referrals that also require input from a speciality other than dermatology.
Comparators	Usual care with FTF interaction or another form of TD (such as studies that compare different modes of TD).	
Outcomes	<ul style="list-style-type: none"> ▪ Appointments avoided. ▪ Consultation/management duration. ▪ Re-referral rate. ▪ Missed appointment/ DNA rate. 	
Study design	Randomised controlled trials, comparative cohort studies, observational study design including single arm studies.	Systematic reviews, case series, case studies, study protocols.
Time	Publications from 2004 onwards.	Studies reporting TD use during COVID-19 pandemic only.
Publication type	Full publications.	Conference abstracts.
Location	OECD countries.	Non-OECD countries.

Key: DNA – did not attend; OECD – Organisation for Economic Co-operation and Development; TD - tele dermatology.

Footnotes: *If a study includes mixed melanoma and other conditions, it can only be included if the data is reported separately by condition or if proportions of conditions can be ascertained.

[∞]If a study included both new patients and those requiring ongoing management, and data were not reported separately for these groups, the study was excluded.

^YWhere a study presented both self-referrals and healthcare provider referrals, this was included; studies of self-referral only were excluded.

Data extraction was completed by a single reviewer and data checks were performed by a second independent reviewer. Data extracted included study information, population information and outcomes relating to the parameters of interest – avoided appointments, re-referral rates, DNA rates, and durations spent in teledermatology and FTF consultations. For each parameter, the mean by population group and the overall mean were obtained. For the avoided appointments, a meta-analysis of proportions with random effects was performed in RStudio version 4.4.1,⁽¹⁴⁷⁾ using the *metaprop* function.⁽¹⁴⁸⁾ Meta-analysis was conducted in accordance with Cochrane guidelines.⁽¹⁴⁹⁾ For DNA rates, only studies that compared DNA rates for FTF and FTF after SAF in the same setting were considered. A risk ratio for DNA in FTF after SAF compared with DNA in FTF was calculated for each study. From these, a mean RR was calculated that was applied to an estimate of HSE outpatient DNA rates, to quantify the impact that TD may have on DNA rates in Ireland. For the duration spent managing consultations, the mean total time spent by the GP assessing patients, obtaining images and writing referrals, along with the mean time spent by GPs specifically in obtaining and uploading images were calculated. The mean time spent by dermatology consultants in evaluating TD referrals and the mean time spent by dermatology consultants in FTF appointments were also calculated. Data on re-referral rates were expected to be scant, but if available, a mean rate across studies was to be calculated.

In the targeted parameter search (see Table A 20 for search strategy and Table A 17 for eligibility criteria), 639 abstracts were screened. From these, 119 full text studies were reviewed, and 53 studies met inclusion criteria. Of these, 18 studies had not been previously identified in the process of the systematic review for Chapter 4. Twelve of the newly identified studies were excluded due to study designs that would have restricted applicability to the context of the publicly funded health and social care system in Ireland.⁽¹⁵⁰⁻¹⁶²⁾ Three studies were not in mixed dermatology populations for the avoided appointments parameter;⁽¹⁶⁰⁻¹⁶²⁾ two studies were excluded as they did not provide comparators for the DNA parameter;^(155, 156) two studies were in populations that would not be generalisable, such as people living with HIV,⁽¹⁵²⁾ and children with infantile haemangiomas;⁽¹⁵⁴⁾ two studies did not provide sufficient details on its patient population;⁽¹⁵⁷⁾ one study was conducted in an imaging clinic;⁽¹⁵⁸⁾ one study was in conducted in a trainee setting;⁽¹⁵³⁾ one study was in the context of a teledermatology centre operating extra work shifts to accommodate the referring clinic;⁽¹⁵⁰⁾ and one was excluded due to a remote geographical location in the context of a visiting TD service.⁽¹⁵¹⁾ Six studies identified through the targeted parameter review were ultimately used to inform the parameters used in the BIA.⁽¹⁶³⁻¹⁶⁸⁾

Sixty-one studies reporting on health service utilisation outcomes which were relevant to the BIA were identified from Chapter 4, of which 39 studies were deemed suitable for inclusion. Of the 22 studies excluded: five studies were not in a mixed dermatology population (for avoided appointments);^(58, 69, 72, 73, 159) four studies reported insufficient detail for the purpose of the BIA;^(6, 23, 40, 86, 140) three studies involved imaging clinics;^(51, 65, 68) three studies were not comparative (for the DNA parameter);^(21, 110, 113) two studies had study designs where GPs could choose where to send referrals;^(55, 169) two studies had referral pathways designed around surgical management;^(35, 46) one study involved SAF video;⁽⁶⁴⁾ and one study was conducted solely during the COVID-19 pandemic.⁽²⁰⁾ (35, 46)

Table A 18 Results of durations analysis from Chapter 4 and targeted review

Parameter	Mean	Number of studies	Information	Source
Total GP time	11.43 mins	9	Time for managing GP consultations (assessment, image activities, writing referral). The mean was obtained from studies using mixed dermatology and mixed cancer populations, as times are expected to be similar across populations.	Chapter 4 of HTA. ^(37, 59, 63, 79, 83, 88) Targeted searches for BIA. ^(163, 164, 170)
GP time for taking and uploading images	5.25 mins	5	Time spent by GP specifically for obtaining and uploading images. The mean was obtained from studies using mixed dermatology populations.	Chapter 4 of HTA. ^(59, 88) Targeted searches for BIA. ^(163, 164, 170)
TD evaluation time	8.17 mins	12	Time spent by consultants in evaluating the TD referrals. The mean was obtained from studies using mixed dermatology, mixed cancer, and inflammatory/infectious populations.	Chapter 4 of HTA. ^(37, 56, 59, 63, 84, 88, 120) Targeted searches for BIA. ^(89, 146, 163, 166, 170)
FTF dermatology evaluation time	20.62 mins	6	Time spent by consultants in FTF appointments. The mean was obtained from studies using mixed dermatology populations.	Chapter 4 of HTA. ^(49, 56, 88, 92, 123) Targeted searches for BIA. ⁽⁸⁹⁾

Table A 19 Teledermatology cost offset when capacity is increased to meet demand

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Workforce savings										
Reduced workforce requirement in WTE consultants	8.4	0.8	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total cost to HSE of WTE consultants	€3.9 m	€0.4 m	€0.4 m	€0.1 m	€0.1 m	€0.1 m	€0.1 m	€0.1 m	€0.1 m	€0.1 m
Annual costs										
Annual workforce saving	€3.9m	€4.3m	€4.8 m	€4.8 m	€4.9 m	€5.0m	€5.1 m	€5.2 m	€5.3 m	€5.4 m
Annual TD costs	€2.3 m	€0.1 m	€0.1 m	€2.1 m	€0.2 m	€0.2 m	€2.1 m	€0.3 m	€0.3 m	€2.1 m
Annual offset saving	€1.6 m	€4.2 m	€4.7 m	€2.7 m	€4.7 m	€4.8 m	€2.9 m	€4.8 m	€5.0 m	€3.2 m

Key: m – million; TD - teledermatology; WTE – whole-time equivalent.

C.3 Search strategy targeted parameters

Table A 20 Search strategy for targeted parameter review

Database Name	MEDLINE Complete via EBSCO
Data search was run	03 June 2025

#	Query	Limiters/Expanders	Last Run Via	Results
S15	S4 AND S14	Limiters - Publication Date: 20040101- Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	642
S14	S7 OR S9 OR S12 OR S13	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	6,878,088
S13	XB DNA OR XB (did not attend) OR XB non-attend* OR XB non attend* OR XB failure to attend OR XB missingness OR XB (do not attend)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	4,238,225

S12	S10 AND S11	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	208,483
S11	XB new OR XB duplicate OR XB subsequent	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	4,087,432
S10	XB re-refer* OR XB rerefer* OR XB episode OR XB refer*	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,419,026
S9	S6 AND S8	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	716,945
S8	XB avoid* OR XB prevent* OR XB convert*	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	2,677,241
S7	S5 AND S6	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	2,521,030
S6	XB consult* OR XB appointment* OR XB evaluat* OR XB manag*	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	6,822,498
S5	XB time OR XB length* OR XB duration OR XB long* OR XB short* OR XB interval	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	9,285,269

			Database - MEDLINE Complete	
S4	S2 OR S3	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,948
S3	XB tele-derm* OR XB telederm*	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	1,630
S2	(XB dermatology) AND (S1)	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	762
S1	(MH "Telemedicine+") OR (MH "Remote Consultation+")	Expanders - Apply equivalent subjects Search modes - Proximity	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - MEDLINE Complete	52,752

References

1. Abdul Gafoor SM, Nelson T, Woodcock E, Adityani B. Patient-led teledermatology for skin lesion triage: a service evaluation of the DyplensTM dermoscope. *Clinical and Experimental Dermatology*. 2024;49(6):612-5.
2. Altieri L, Hu J, Nguyen A, Cockburn M, Chiu M, Cotliar J, et al. Interobserver reliability of teledermatology across all Fitzpatrick skin types. *J Telemed Telecare*. 2017;23(1):68-73.
3. Armstrong AW, Chambers CJ, Maverakis E, Cheng MY, Dunnick CA, Chren M-M, et al. Effectiveness of Online vs In-Person Care for Adults With Psoriasis: A Randomized Clinical Trial. *JAMA Network Open*. 2018;1(6):e183062-e.
4. Armstrong AW, Ford AR, Chambers CJ, Maverakis E, Dunnick CA, Chren M-M, et al. Online Care Versus In-Person Care for Improving Quality of Life in Psoriasis: A Randomized Controlled Equivalency Trial. *Journal of Investigative Dermatology*. 2019;139(5):1037-44.
5. Young PM, Chen AY, Ford AR, Cheng MY, Lane CJ, Armstrong AW. Effects of online care on functional and psychological outcomes in patients with psoriasis: A randomized controlled trial. *Journal of the American Academy of Dermatology*. 2023;88(2):364-70.
6. Arzberger E, Curiel-Lewandrowski C, Blum A, Chubisov D, Oakley A, Rademaker M, et al. Teledermoscopy in High-risk Melanoma Patients: A Comparative Study of Face-to-face and Teledermatology Visits. *Acta Derm Venereol*. 2016;96(6):779-83.
7. Baba M, Seçkin D, Kapdağlı S. A comparison of teledermatology using store-and-forward methodology alone, and in combination with Web camera videoconferencing. *Journal of Telemedicine and Telecare*. 2005;11(7):354-60.
8. Börve A, Holst A, Gente-Lidholm A, Molina-Martinez R, Paoli J. Use of the mobile phone multimedia messaging service for teledermatology. *Journal of Telemedicine and Telecare*. 2012;18(5):292-6.
9. Borve A, Terstappen K, Sandberg C, Paoli J. Mobile teledermoscopy-there's an app for that! *Dermatol Pract Concept*. 2013;3(2):41-8.
10. Börve A, Dahlén Gyllencreutz J, Terstappen K, Johansson Backman E, Alden-Bratt A, Danielsson M, et al. Smartphone teledermoscopy referrals: A novel process for improved triage of skin cancer patients. *Acta Dermato-Venereologica*. 2015;95(2):186-90.
11. Dahlén Gyllencreutz J, Paoli J, Bjellerup M, Bucharbajeva Z, Gonzalez H, Nielsen K, et al. Diagnostic agreement and interobserver concordance with teledermoscopy referrals. *Journal of the European Academy of Dermatology and Venereology*. 2017;31(5):898-903.
12. Dahlén Gyllencreutz J, Johansson Backman E, Terstappen K, Paoli J. Teledermoscopy images acquired in primary health care and hospital settings – a comparative study of image quality. *Journal of the European Academy of Dermatology and Venereology*. 2018;32(6):1038-43.
13. Bowns IR, Collins K, Walters SJ, McDonagh AJG. Telemedicine in dermatology: A randomised controlled trial. *Health Technology Assessment*. 2006;10(43):iii-39.

14. Collins K, Walters S, Bowns I. Patient satisfaction with teledermatology: quantitative and qualitative results from a randomized controlled trial. *Journal of telemedicine and telecare*. 2004;10(1):29-33.
15. Collins K, Bowns I, Walters S. General practitioners' perceptions of asynchronous telemedicine in a randomized controlled trial of teledermatology. *Journal of telemedicine and telecare*. 2004;10(2):94-8.
16. Carter ZA, Goldman S, Anderson K, Li X, Hynan LS, Chong BF, et al. Creation of an Internal Teledermatology Store-and-Forward System in an Existing Electronic Health Record: A Pilot Study in a Safety-Net Public Health and Hospital System. *JAMA Dermatology*. 2017;153(7):644-50.
17. Castillo F, Peracca S, Oh DH, Twigg AR. The Utilization and Impact of Live Interactive and Store-and-Forward Teledermatology in a Veterans Affairs Medical Center During the COVID-19 Pandemic. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association*. 2022;28(8):1186-92.
18. Clarke EL, Reichenberg JS, Ahmed AM, Keeling B, Custer J, Rathouz PJ, et al. The utility of teledermatology in the evaluation of skin lesions. *Journal of Telemedicine and Telecare*. 2021;29(5):382-9.
19. Chansky PB, Simpson CL, Lipoff JB. Implementation of a dermatology teletriage system to improve access in an underserved clinic: A retrospective study. *Journal of the American Academy of Dermatology*. 2017;77(5):975-7.
20. Cheng HS, Schurr L. Teledermatology for suspected skin cancer in New Zealand during the COVID-19 pandemic required in-person follow-up in 28% of cases. *JAAD international*. 2022;6:59-60.
21. Congalton AT, Oakley AM, Rademaker M, Bramley D, Martin RCW. Successful melanoma triage by a virtual lesion clinic (teledermatoscopy). *Journal of the European Academy of Dermatology and Venereology*. 2015;29(12):2423-8.
22. Costin A, & Furtado, C. Experience of a Pilot Project of Teledermatology Screening at the Department of Dermatology and Venereology of Hospital Garcia de Orta. *Journal of the Portuguese Society of Dermatology and Venereology*. 2019;77(4):311-4.
23. Creighton-Smith M, Murgia RD, Konnikov N, Dornelles A, Garber C, Nguyen BT. Incidence of melanoma and keratinocytic carcinomas in patients evaluated by store-and-forward teledermatology vs. dermatology clinic. *International Journal of Dermatology*. 2017;56(10):1026-31.
24. Damsin T, Canivet G, Jacquemin P, Seidel L, Gillet P, Giet D, et al. Value of Teledermoscopy in Primary Healthcare Centers: Preliminary Results of the TELESPOT Project in Belgium. *Dermatol Ther (Heidelb)*. 2020;10(6):1405-13.
25. Damsin T, Canivet G, Jacquemin P, Seidel L, Absil G, Giet D, et al. Evaluation of a 3-year teledermoscopy project in primary healthcare centres in Belgium. *JEADV Clinical Practice*. 2023;3.
26. de Giorgi V, Gori A, Savarese I, D'Errico A, Grazzini M, Papi F, et al. Teledermoscopy in doubtful melanocytic lesions: is it really useful? *International Journal of Dermatology*. 2016;55(10):1119-23.
27. Di Stefani A, Zalaudek I, Argenziano G, Chimenti S, Soyer HP. Feasibility of a Two-Step Teledermatologic Approach for the Management of Patients with Multiple Pigmented Skin Lesions. *Dermatologic Surgery*. 2007;33(6).

28. Ebner C, Wurm EM, Binder B, Kittler H, Lozzi GP, Massone C, et al. Mobile teledermatology: a feasibility study of 58 subjects using mobile phones. *Journal of telemedicine and telecare*. 2008;14(1):2-7.
29. Eminovic N, de Keizer NF, Wyatt JC, ter Riet G, Peek N, van Weert HC, et al. Teledermatologic consultation and reduction in referrals to dermatologists: a cluster randomized controlled trial. *Arch Dermatol*. 2009;145(5):558-64.
30. Fabbrocini G, Balato A, Rescigno O, Mariano M, Scalvenzi M, Brunetti B. Telediagnosis and face-to-face diagnosis reliability for melanocytic and non-melanocytic 'pink' lesions. *Journal of the European Academy of Dermatology and Venereology*. 2008;22(2):229-34.
31. Faucon C, Gribi D, Courvoisier DS, Senet P, Itani O, Barbaud A, et al. Performance accuracy, advantages and limitations of a store-and-forward teledermatology platform developed for general practitioners: A retrospective study of 298 cases. *Annales de Dermatologie et de Venereologie*. 2022;149(4):245-50.
32. Fazil Jaber N, Jerkovic Gulin S, Seifert O. Analysis of Teledermoscopy and Face-to-Face Examination of Atypical Pigmented Lesions: a Cross-Sectional, Retrospective Study. *Dermatology Practical & Conceptual*. 2023;13(3):e2023212.
33. Feigenbaum DF, Boscardin CK, Frieden IJ, Mathes EFD. Can You See Me Now? Video Supplementation for Pediatric Teledermatology Cases. *Pediatric Dermatology*. 2017;34(5):566-71.
34. Felmingham C, Pan Y, Kok Y, Kelly J, Gin D, Nguyen J, et al. Improving skin cancer management with ARTificial intelligence: A pre-post intervention trial of an artificial intelligence system used as a diagnostic aid for skin cancer management in a real-world specialist dermatology setting. *Journal of the American Academy of Dermatology*. 2023;88(5):1138-42.
35. Ferrandiz L, Moreno-Ramirez D, Nieto-Garcia A, Carrasco R, Moreno-Alvarez P, Galdeano R, et al. Teledermatology-based presurgical management for nonmelanoma skin cancer: a pilot study. *Dermatol Surg*. 2007;33(9):1092-8.
36. Ferrándiz L, Ruiz-de-Casas A, Martín-Gutiérrez FJ, Peral-Rubio F, Méndez-Abad C, Ríos-Martín JJ, et al. Effect of Teledermatology on the Prognosis of Patients With Cutaneous Melanoma. *Archives of Dermatology*. 2012;148(9):1025-8.
37. Ferrándiz L, Ojeda-Vila T, Corrales A, Martín-Gutiérrez FJ, Ruíz-de-Casas A, Galdeano R, et al. Internet-based skin cancer screening using clinical images alone or in conjunction with dermoscopic images: A randomized teledermoscopy trial. *Journal of the American Academy of Dermatology*. 2017;76(4):676-82.
38. Ferrándiz L, Ojeda-Vila T, Corrales A, Martín-Gutiérrez FJ, Ruíz-de-Casas A, Galdeano R, et al. Impact of dermoscopy on an internet-based skin cancer triage system: Interim results of a randomized study. *Journal of the American Academy of Dermatology*. 2017;76(2):342-3.
39. Ferrara G, Argenziano G, Cerroni L, Cusano F, Di Blasi A, Urso C, et al. A pilot study of a combined dermoscopic–pathological approach to the telediagnosis of melanocytic skin neoplasms. *Journal of Telemedicine and Telecare*. 2004;10(1):34-8.

40. Ford JA, Pereira A. Does teledermatology reduces secondary care referrals and is it acceptable to patients and doctors?: A service evaluation. *Journal of Evaluation in Clinical Practice*. 2015;21(4):710-6.
41. Fujimoto A, Hayashi R, Iguchi S, Abe R. Can dermatologists reach their full potential in teledermatology? A validation study of diagnostic performance of skin diseases in live video conferencing teledermatology. *The Journal of Dermatology*. 2024;51(7):991-8.
42. Gao JL, Oakley A. Teledermatology for Enhancing Skin Cancer Diagnosis and Management: Retrospective Chart Review. *JMIR Dermatol*. 2023;6:e45430.
43. Gatica JL, Bertoló S, Morales E, Espinoza M, Contreras C. Store-and-forward teledermatology in Chile: A contribution to primary health care. *Piel*. 2015;30(3):148-54.
44. Heffner VA, Lyon VB, Brousseau DC, Holland KE, Yen K. Store-and-forward teledermatology versus in-person visits: A comparison in pediatric teledermatology clinic. *Journal of the American Academy of Dermatology*. 2009;60(6):956-61.
45. Holmes AN, Chansky PB, Simpson CL. Teledermatology Consultation Can Optimize Treatment of Cutaneous Disease by Nondermatologists in Under-Resourced Clinics. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association*. 2020;26(10):1284-90.
46. Hsiao JL, Oh DH. The impact of store-and-forward teledermatology on skin cancer diagnosis and treatment. *Journal of the American Academy of Dermatology*. 2008;59(2):260-7.
47. Hunt WTN, Ali L, Marder H, Sansom JE, Berker DAR. A service evaluation between 2-week wait (2WW) skin cancer referrals via teledermatology and the standard face-to-face pathway at a teaching hospital. *Clinical and Experimental Dermatology*. 2020;45(4):473-6.
48. Hussain K, Khalil N, Amini A, Patel NP. Comparing the number-needed-to-biopsy ratio for melanoma diagnosis between teledermatology and face-to-face models of care. *Clinical and Experimental Dermatology*. 2023;48(12):1392-4.
49. Ilie PC, Stefanescu S, Aldridge J, Gaffney P, Belcher J, Smith L. Value of DermaCheckup as a novel dedicated digital health solution for teledermatology. *Medicine International*. 2022;2(1).
50. Jariwala NN, Snider CK, Mehta SJ, Armstrong JK, Smith-McLallen A, Takeshita J, et al. Prospective Implementation of a Consultative Store-and-Forward Teledermatology Model at a Single Urban Academic Health System with Real Cost Data Subanalysis. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association*. 2021;27(9):989-96.
51. Jones L, Jameson M, Oakley A. Remote skin cancer diagnosis: Adding images to electronic referrals is more efficient than wait-listing for a nurse-led imaging clinic. *Cancers*. 2021;13(22).
52. Joseph SM, Aspey L, Chisolm S. Dermatology e-consult at a county hospital: pilot review. *Dermatology Online Journal*. 2023;29(1).
53. Kahn E, Sossong S, Goh A, Carpenter D, Goldstein S. Evaluation of skin cancer in Northern California Kaiser Permanente's store-and-forward teledermatology referral program. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association*. 2013;19(10):780-5.

54. Kazi R, Evankovich MR, Liu R, Liu A, Moorhead A, Ferris LK, et al. Utilization of Asynchronous and Synchronous Teledermatology in a Large Health Care System During the COVID-19 Pandemic. *Telemedicine and e-Health*. 2020;27(7):771-7.
55. Keleshian V, Ortega-Loayza AG, Tarkington P. Incidental skin malignancies in teledermatology and in-person cohorts in the Veterans Affairs Health System. *Journal of the American Academy of Dermatology*. 2017;77(5):965-6.
56. Kim GE, Afanasiev OK, O'Dell C, Sharp C, Ko JM. Implementation and evaluation of Stanford Health Care store-and-forward teledermatology consultation workflow built within an existing electronic health record system. *Journal of telemedicine and telecare*. 2020;26(3):125-31.
57. Kips J, Lambert J, Ongenaë K, De Sutter A, Verhaeghe E. Teledermatology in Belgium: a pilot study. *Acta Clinica Belgica*. 2020;75(2):116-22.
58. Klaz I, Wohl Y, Nathansohn N, Yerushalmi N, Sharvit S, Kochba I, et al. Teledermatology: quality assessment by user satisfaction and clinical efficiency. *Isr Med Assoc J*. 2005;7(8):487-90.
59. Knol A, van den Akker TW, Damstra RJ, de Haan J. Teledermatology reduces the number of patient referrals to a dermatologist. *Journal of telemedicine and telecare*. 2006;12(2):75-8.
60. Koch R, Rösel I, Polanc A, Thies C, Sundmacher L, Eigentler T, et al. TELEDerM: Implementing store-and-forward teledermatology consultations in general practice: Results of a cluster randomized trial. *Journal of telemedicine and telecare*. 2024;30(4):647-60.
61. Kroemer S, Hofmann-Wellenhof R, Soyer H, Koppitz M, Massone C. The use of mobile phones for skin tumor screening. *Ehealth2008-Medical Informatics Meets Ehealth*. 2008:81-3.
62. Kroemer S, Frühauf J, Campbell TM, Massone C, Schwantzer G, Soyer HP, et al. Mobile teledermatology for skin tumour screening: diagnostic accuracy of clinical and dermoscopic image tele-evaluation using cellular phones. *British Journal of Dermatology*. 2011;164(5):973-9.
63. Lasierra N, Alesanco A, Gilaberte Y, Magallón R, García J. Lessons learned after a three-year store and forward teledermatology experience using internet: Strengths and limitations. *International Journal of Medical Informatics*. 2012;81(5):332-43.
64. Lepe V, Moncada B, Castanedo-Cázares JP, Martínez-Rodríguez A, Mercado-Ceja SM, Gordillo-Moscoso A. First Study of Teledermatology in Mexico. A New Public Health Tool. *Gaceta Medica de Mexico*. 2004;140(1):23-6.
65. Lim D, Oakley AMM, Rademaker M. Better, sooner, more convenient: A successful teledermoscopy service. *Australasian Journal of Dermatology*. 2012;53(1):22-5.
66. Lopez-Liria R, Lopez-Villegas A, Valverde-Martinez MA, Perez-Heredia M, Vega-Ramirez FA, Peiro S, et al. Comparative Analysis of Quality of Life of Patients with Dermatological Problems: Teledermatology Versus Face-to-Face Dermatology. *Healthcare (2227-9032)*. 2022;10(11):2172.
67. Leal-Costa C, Lopez-Villegas A, Perez-Heredia M, Baena-Lopez MA, Hernandez-Montoya CJ, Lopez-Liria R. Patients' Experiences and Communication with Teledermatology versus Face-to-Face Dermatology. *Journal of Clinical Medicine*. 2022;11(19).

68. Lowe A, Stone NM. Five-year experience of a new inflammatory teledermoscopy service. *Clinical and Experimental Dermatology*. 2021;46(3):564-5.
69. Mahendran R, Goodfield MJD, Sheehan-Dare RA. An evaluation of the role of a store-and-forward teledermatology system in skin cancer diagnosis and management. *Clinical and Experimental Dermatology*. 2005;30(3):209-14.
70. Marchell R, Locatis C, Burges G, Maisiak R, Liu WL, Ackerman M. Comparing High Definition Live Interactive and Store-and-Forward Consultations to In-Person Examinations. *Telemedicine Journal and e-health : the official journal of the American Telemedicine Association*. 2017;23(3):213-8.
71. Marchell R, Locatis C, Burgess G, Maisiak R, Liu W-L, Ackerman M. Patient and Provider Satisfaction with Teledermatology. *Telemedicine and e-Health*. 2017;23(8):684-90.
72. Marwaha SS, Fevrier H, Alexeeff S, Crowley E, Haiman M, Pham N, et al. Comparative effectiveness study of face-to-face and teledermatology workflows for diagnosing skin cancer. *Journal of the American Academy of Dermatology*. 2019;81(5):1099-106.
73. Marwaha S, Dusendang Jennifer R, Alexeeff Stacey E, Crowley E, Haiman M, Pham N, et al. Comanagement of Rashes by Primary Care Providers and Dermatologists: A Retrospective Study. *The Permanente Journal*. 2021;25(4):1-8.
74. Massone C, Lozzi GP, Wurm E, Hofmann-Wellenhof R, Schoellnast R, Zalaudek I, et al. Cellular phones in clinical teledermatology. *Arch Dermatol*. 2005;141(10):1319-20.
75. Massone C, Lozzi GP, Wurm E, Hofmann-Wellenhof R, Schoellnast R, Zalaudek I, et al. Personal digital assistants in teledermatology [17]. *British Journal of Dermatology*. 2006;154(4):801-2.
76. Massone C, Hofmann-Wellenhof R, Ahlgrimm-Siess V, Gabler G, Ebner C, Peter Soyer H. Melanoma Screening with Cellular Phones. *PLOS ONE*. 2007;2(5):e483.
77. Massone C, Javor S, Amato I, Biondo G, Brunasso AMG, Hofmann-Wellenhof R. Training of primary care physicians enhances performance of mobile teledermatology. *Anais Brasileiros de Dermatologia*. 2021;96(4):514-6.
78. May C, Giles L, Gupta G. Prospective observational comparative study assessing the role of store and forward teledermatology triage in skin cancer. *Clinical and Experimental Dermatology*. 2008;33(6):736-9.
79. McGoey ST, Oakley A, Rademaker M. Waikato Teledermatology: a pilot project for improving access in New Zealand. *Journal of Telemedicine and Telecare*. 2015;21(7):414-9.
80. McKoy KC, DiGregorio S, Stira L. Asynchronous Teledermatology in an Urban Primary Care Practice. *Telemedicine Journal and e-Health*. 2004;10(supplement 2):S-70-S-80.
81. McLaughlin S, Tobin RJ, Leonard S, McEwan R, Evans CD, Douglas WS, et al. The role of digital photography and electronic referral in the triage of patients with suspected skin cancer. *British Journal of Dermatology*. 2006;154(1):188-90.
82. Mofid M, Nesbitt T, Knuttel R. The other side of teledermatology: patient preferences. *Journal of Telemedicine and Telecare*. 2007;13(5):246-50.

83. Moreno-Ramirez D, Ferrandiz L, Galdeano R, Camacho FM. Teledermatoscopy as a triage system for pigmented lesions: a pilot study. *Clinical and Experimental Dermatology*. 2006;31(1):13-8.
84. Moreno-Ramirez D, Ferrandiz L, Nieto-Garcia A, Carrasco R, Moreno-Alvarez P, Galdeano R, et al. Store-and-forward teledermatology in skin cancer triage: Experience and evaluation of 2009 teleconsultations. *Archives of Dermatology*. 2007;143(4):479-84.
85. Morton CA, Downie F, Auld S, Smith B, van der Pol M, Baughan P, et al. Community photo-triage for skin cancer referrals: an aid to service delivery. *Clinical and experimental dermatology*. 2011;36(3):248-54.
86. Naka F, Lu J, Porto A, Villagra J, Wu ZH, Anderson D. Impact of dermatology eConsults on access to care and skin cancer screening in underserved populations: A model for teledermatology services in community health centers. *Journal of the American Academy of Dermatology*. 2018;78(2):293-302.
87. Calafiore R, Khan A, Anderson D, Wu ZH, Lu J. Impact of dermoscopy-aided pediatric teledermatology program on the accessibility and efficiency of dermatology care at community health centers. *Journal of telemedicine and telecare*. 2024;30(3):519-26.
88. Nami N, Massone C, Rubegni P, Cevenini G, Fimiani M, Hofmann-Wellenhof R. Concordance and Time Estimation of Store-and-Forward Mobile Teledermatology Compared to Classical Face-to-Face Consultation. *Acta Dermato-Venereologica*. 2015;95(1):35-9.
89. Nizar NA, Farooki R, Mahapatra P, Halpern S, Hoogenboom TCH. Patient cost analysis of a community-based teledermatology service versus conventional outpatient appointments in East Kent: a retrospective study through a societal lens to reduce health inequalities. *BMC Health Services Research*. 2024;24(1):1632.
90. O'Connor DM, Jew OS, Perman MJ, Castelo-Soccio LA, Winston FK, McMahon PJ. Diagnostic accuracy of pediatric teledermatology using parent-submitted photographs a randomized clinical trial. *JAMA Dermatology*. 2017;153(12):1243-8.
91. Oztas MO, Calikoglu E, Baz K, Birol A, Onder M, Calikoglu T, et al. Reliability of Web-based teledermatology consultations. *Journal of telemedicine and telecare*. 2004;10(1):25-8.
92. Palamaras I, Wark H, Short B, Hameed OA, Sheraz AA, Thomson P, et al. Clinical outcomes and operational impact of a medical photography based teledermatology service with over 8,000 patients in the UK. *Journal of visual communication in medicine*. 2022;45(1):6-17.
93. Papadimitriou I, Bakirtzi K, Sotiriou E, Lallas A, Vakirlis E, Lazaridou E, et al. Teledermoscopy of common pink, flat and scaly lesions as an adjuvant diagnostic method in everyday clinical practice: so far, so close. *Journal of the European Academy of Dermatology and Venereology*. 2021;35(8):e507-e9.
94. Piccolo D, Soyer HP, Chimenti S, Argenziano G, Bartenjev I, Hofmann-Wellenhof R, et al. Diagnosis and categorization of acral melanocytic lesions using teledermoscopy. *Journal of Telemedicine and Telecare*. 2004;10(6):346-50.

95. Piette E, Nougairède M, Vuong V, Crickx B, Tran VT. Impact of a store-and-forward teledermatology intervention versus usual care on delay before beginning treatment: A pragmatic cluster-randomized trial in ambulatory care. *J Telemed Telecare*. 2017;23(8):725-32.
96. Pizzichetta MA, Talamini R, Stanganelli I, Puddu P, Bono R, Argenziano G, et al. Amelanotic/hypomelanotic melanoma: clinical and dermoscopic features. *British Journal of Dermatology*. 2004;150(6):1117-24.
97. Ríos-Yuil JM. [Correlation between face-to-face assessment and telemedicine for the diagnosis of skin disease in case conferences]. *Actas dermo-sifiliograficas*. 2012;103(2):138-43.
98. Rogers T, McCrary MR, Yeung H, Krueger L, Chen SC. Dermoscopic Photographs Impact Confidence and Management of Remotely Triage Skin Lesions. *Dermatol Pract Concept*. 2022;12(3):e2022129.
99. Romero G, García M, Vera E, Martínez C, Cortina P, Sánchez P, et al. Preliminary results of DERMATEL: Prospective randomized study comparing synchronous and asynchronous modalities of teledermatology. *Actas Dermo-Sifiliograficas*. 2006;97(10):630-6.
100. Romero G, Sánchez P, García M, Cortina P, Vera E, Garrido JA. Randomized controlled trial comparing store-and-forward teledermatology alone and in combination with web-camera videoconferencing. *Clinical and Experimental Dermatology*. 2010;35(3):311-7.
101. Romero Aguilera G, Cortina De La Calle P, Vera Iglesias E, Sánchez Caminero P, García Arpa M, Garrido Martín JA. Interobserver reliability of store-and-forward teledermatology in a clinical practice setting. *Actas Dermo-Sifiliograficas*. 2014;105(6):605-13.
102. Rubegni P, Nami N, Cevenini G, Poggiali S, Hofmann-Wellenhof R, Massone C, et al. Geriatric teledermatology: Store-and-forward vs. face-to-face examination. *Journal of the European Academy of Dermatology and Venereology*. 2011;25(11):1334-9.
103. Ruiz C, Gaviria C, Gaitán M, Manrique R, Zuluaga Á, Trujillo A. Concordance studies of a web based system in teledermatology. *Colombia Medica*. 2009;40(3):259-70.
104. Sahin C, Carlsson M, Munir Ehrlington F, Micu E, Falk M. Increased use of Dermoscopy in Primary Healthcare Following the Implementation of Teledermatology in Southeast Sweden: A Retrospective Cohort Study of 2,137 Patients. *Acta Dermato-Venereologica*. 2024;104:adv40890.
105. Schultz K, Ivert LU, Lapins J, Sartorius K, Johansson EK. Lead Time From First Suspicion Of Malignant Melanoma In Primary Care To Diagnostic Excision: A Cohort Study Comparing Teledermatoscopy And Traditional Referral To A Dermatology Clinic At A Tertiary Hospital. *Dermatology Practical & Conceptual*. 2023;13(1):e2023018.
106. Seiger K, Hawryluk EB, Kroshinsky D, Kvedar JC, Das S. Pediatric dermatology eConsults: Reduced wait times and dermatology office visits. *Pediatr Dermatol*. 2020;37(5):804-10.
107. Şenel E, Baba M, Durdu M. The contribution of teledermatoscopy to the diagnosis and management of non-melanocytic skin tumours. *Journal of Telemedicine and Telecare*. 2013;19(1):60-3.

108. Senel E, Sabancılar E, Mansuroğlu C, Demir E. A preliminary study of the contribution of telemicroscopy to the diagnosis and management of skin tumours in teledermatology. *Journal of Telemedicine & Telecare*. 2014;20(4):178-83.
109. Shalmon D, Ellenbogen E, Kaplan Y, Bar J, Bar-Ilan E, Daniely D, et al. Accuracy of digital data-based diagnoses: A single-center prospective comparative trial. *Journal of the American Academy of Dermatology*. 2023;88(2):450-1.
110. Shapiro M, James WD, Kessler R, Lazorik FC, Katz KA, Tam J, et al. Comparison of skin biopsy triage decisions in 49 patients with pigmented lesions and skin neoplasms: Store-and-forward teledermatology vs face-to-face dermatology. *Archives of Dermatology*. 2004;140(5):525-8.
111. Shin H, Kim DH, Ryu HH, Yoon SY, Jo SJ. Teledermatology consultation using a smartphone multimedia messaging service for common skin diseases in the Korean army: a clinical evaluation of its diagnostic accuracy. *Journal of telemedicine and telecare*. 2014;20(2):70-4.
112. Sola-Ortigosa J, Muñoz-Santos C, Masat-Ticó T, Isidro-Ortega J, Guilabert A. The Role of Teledermatology and Teledermoscopy in the Diagnosis of Actinic Keratosis and Field Cancerization. *Journal of Investigative Dermatology*. 2020;140(10):1976-84.e4.
113. Taberner Ferrer R, Pareja Bezares A, Llambrich Mañes A, Vila Mas A, Torné Gutiérrez I, Nadal Lladó C, et al. Diagnostic reliability of an asynchronous teledermatology consultation. *Atencion Primaria*. 2009;41(10):552-7.
114. Tan E, Yung A, Jameson M, Oakley A, Rademaker M. Successful triage of patients referred to a skin lesion clinic using teledermoscopy (IMAGE IT trial). *British Journal of Dermatology*. 2010;162(4):803-11.
115. Taslidere N, Kucuk OS. Can a Correct Diagnosis Be Established Using the Teledermatology Method? *Acta Dermatovenerologica Croatica*. 2022;30(1):32-9.
116. Taslidere N, Kucuk OS. Investigation of the effectiveness of teledermatology in the diagnosis of skin lesions in pediatric patients. *Revista da Associacao Medica Brasileira*. 2023;69(10).
117. Tensen E, van Sinderen F, Bekkenk MW, Jaspers MW, Peute LW. To Refer or Not to Refer in Teledermoscopy: Retrospective Study. *JMIR dermatology*. 2022;5(3):e40888.
118. Van Der Heijden JP, De Keizer NF, Bos JD, Spuls PI, Witkamp L. Teledermatology applied following patient selection by general practitioners in daily practice improves efficiency and quality of care at lower cost. *British Journal of Dermatology*. 2011;165(5):1058-65.
119. van der Heijden JP, Thijssing L, Witkamp L, Spuls PI, de Keizer NF. Accuracy and reliability of teledermatoscopy with images taken by general practitioners during everyday practice. *Journal of Telemedicine and Telecare*. 2013;19(6):320-5.
120. Vañó-Galván S, Hidalgo Á, Aguayo-Leiva I, Gil-Mosquera M, Ríos-Buceta L, Plana MN, et al. Store-and-forward teledermatology: Assessment of validity in a series of 2000 observations. *Actas Dermo-Sifiliograficas*. 2011;102(4):277-83.

121. Veronese F, Branciforti F, Zavattaro E, Tarantino V, Romano V, Meiburger KM, et al. The Role in Teledermoscopy of an Inexpensive and Easy-to-Use Smartphone Device for the Classification of Three Types of Skin Lesions Using Convolutional Neural Networks. *Diagnostics*. 2021;11(3):451.
122. Veronese F, Tarantino V, Zavattaro E, Biacchi F, Airoidi C, Salvi M, et al. Teledermoscopy in the Diagnosis of Melanocytic and Non-Melanocytic Skin Lesions: Nurugo™ Derma Smartphone Microscope as a Possible New Tool in Daily Clinical Practice. *Diagnostics* [Internet]. 2022; 12(6).
123. Vestergaard T, Prasad SC, Schuster A, Laurinaviciene R, Andersen MK, Bygum A. Diagnostic accuracy and interobserver concordance: teledermoscopy of 600 suspicious skin lesions in Southern Denmark. *Journal of the European Academy of Dermatology and Venereology*. 2020;34(7):1601-8.
124. Vestergaard T, Prasad SC, Schuster A, Laurinaviciene R, Bygum A, Munck A, et al. Introducing teledermoscopy of possible skin cancers in general practice in Southern Denmark. *Family Practice*. 2021;37(4):513-8.
125. Vestergaard T, Andersen MK, Bygum A. Acceptance of Teledermoscopy by General Practitioners and Dermatologists in Denmark. *Dermatology practical & conceptual*. 2021;11(2):e2021033.
126. Vestergaard T, Andersen MK, Kidholm K. A cost-minimization analysis comparing teledermoscopy and face-to-face evaluations of suspicious skin lesions in Southern Denmark. *Journal of telemedicine and telecare*. 2024;30(4):661-7.
127. Gilling S, Mortz CG, Vestergaard T. Patient satisfaction and expectations regarding mobile teledermoscopy in general practice for diagnosis of non-melanoma skin cancer and malignant melanoma. *Acta Dermato-Venereologica*. 2020;100(8):1-7.
128. Niklasson L, Prasad SC, Schuster A, Laurinaviciene R, Vestergaard T. A comparative study of the image quality of dermoscopic images acquired in general practice versus at a dermatology department. *JEADV Clinical Practice*. 2023;2(4):802-9.
129. Wang RF, Trinidad J, Lawrence J, Pootrakul L, Forrest LA, Goist K, et al. Improved patient access and outcomes with the integration of an eConsult program (teledermatology) within a large academic medical center. *Journal of the American Academy of Dermatology*. 2020;83(6):1633-8.
130. Warshaw EM, Lederle FA, Grill JP, Gravely AA, Bangerter AK, Fortier LA, et al. Accuracy of teledermatology for nonpigmented neoplasms. *Journal of the American Academy of Dermatology*. 2009;60(4):579-88.
131. Warshaw EM, Lederle FA, Grill JP, Gravely AA, Bangerter AK, Fortier LA, et al. Accuracy of teledermatology for pigmented neoplasms. *Journal of the American Academy of Dermatology*. 2009;61(5):753-65.
132. Warshaw EM, Gravely AA, Nelson DB. Accuracy of teledermatology/teledermoscopy and clinic-based dermatology for specific categories of skin neoplasms. *Journal of the American Academy of Dermatology*. 2010;63(2):348-52.
133. Warshaw EM, Gravely AA, Bohjanen KA, Chen K, Lee PK, Rabinovitz HS, et al. Interobserver accuracy of store and forward teledermatology for skin neoplasms. *Journal of the American Academy of Dermatology*. 2010;62(3):513-6.

134. Warshaw EM, Gravely AA, Nelson DB. Reliability of store and forward teledermatology for skin neoplasms. *Journal of the American Academy of Dermatology*. 2015;72(3):426-35.
135. Whited JD, Warshaw EM, Edison KE, Kapur K, Thottapurathu L, Raju S, et al. Effect of store and forward teledermatology on quality of life: A randomized controlled trial. *JAMA Dermatology*. 2013;149(5):584-91.
136. Whited JD, Warshaw EM, Kapur K, Edison KE, Thottapurathu L, Raju S, et al. Clinical course outcomes for store and forward teledermatology versus conventional consultation: A randomized trial. *Journal of Telemedicine and Telecare*. 2013;19(4):197-204.
137. Datta SK, Warshaw EM, Edison KE, Kapur K, Thottapurathu L, Moritz TE, et al. Cost and utility analysis of a store-and-forward teledermatology referral system: A randomized clinical trial. *JAMA Dermatology*. 2015;151(12):1323-9.
138. Wu LW, Cho SK, Chamseddin B, Ashworth J, Hynan LS, Chong BF, et al. Evaluation of the effect of store-and-forward teledermatology on in-person health care system utilization in a safety-net public health and hospital system. *Journal of the American Academy of Dermatology*. 2021;85(4):1026-8.
139. Zink A, Kolbinger A, Leibl M, León Suarez I, Gloning J, Merkel C, et al. Teledermoscopy by mobile phones: Reliable help in the diagnosis of skin lesions? *Hautarzt*. 2017;68(11):890-5.
140. Zink A, Kolbinger A, Leibl M, Leon-Suarez I, Gloning J, Merkel C, et al. The value of teledermatology using a mobile app compared to conventional dermatology. *European Journal of Dermatology*. 2017;27(4):429-31.
141. Chang MS, Leachman SA, Berry EG, Curiel-Lewandrowski C, Geller AC, Grossman D, et al. Changes in melanoma care practices during the COVID-19 pandemic: a multi-institutional cross-sectional survey. *Dermatol Online J*. 2021;27(4).
142. Central Statistics Office. PEC19- Projectd Population based on Census 2022. Cork: CSO; 2024.
143. NHS England. Hospital Outpatient Activity 2023-24 [Internet]. NHS England; 2024 [updated 2024 September 26; cited 2025 August 19]. Contains public sector information licensed under the Open Government Licence v3.0. Available from: <https://digital.nhs.uk/data-and-information/publications/statistical/hospital-outpatient-activity/2023-24>.
144. Health Service Executive. Outpatient (OP) Waiting List Management Protocol 2022. 2022.
145. Health Service Executive. Model of Care National Clinical Programme for Dermatology Ireland: 2020 [Available from: <https://www.hse.ie/eng/about/who/cspd/ncps/dermatology/resources/national-clinical-programme-for-dermatology-a-model-of-care-for-ireland.pdf>].
146. Charman C, Wainman H, Rabindranathnambi A, Whybrew C, Williams HC. How to do digital Advice and Guidance well. *Clinical and Experimental Dermatology*. 2023;48(8):860-5.
147. R Core Team. R: A Language and Environment for Statistical Computing. Vienna: R Foundation for Statistical Computing; 2024.
148. Balduzzi S, Rücker G, Schwarzer G. How to perform a meta-analysis with R: a practical tutorial. *Evidence-Based Mental Health*. 2019(22):153-60.

149. 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.
150. Barros-Tornay R, Ferrándiz L, Martín-Gutiérrez FJ, Fernández-Orland A, Serrano-Gotarredona A, de la Torre JM, et al. Feasibility and cost of a telemedicine-based short-term plan for initial access in general dermatology in Andalusia, Spain. *JAAD Int*. 2021;4:52-7.
151. González Coloma F, Sandoval Garcés M, Gedda Quiroga V, Bley Banda C. Teledermatology in Remote Parts of Chile: Experience in 4 Isolated Rural Areas. *Actas Dermosifiliogr (Engl Ed)*. 2019;110(8):653-8.
152. Nelson CA, Takeshita J, Wanat KA, Bream KD, Holmes JH, Koenig HC, et al. Impact of store-and-forward (SAF) teledermatology on outpatient dermatologic care: A prospective study in an underserved urban primary care setting. *J Am Acad Dermatol*. 2016;74(3):484-90.e1.
153. Zakaria A, Miclau TA, Maurer T, Leslie KS, Amerson E. Cost Minimization Analysis of a Teledermatology Triage System in a Managed Care Setting. *JAMA Dermatol*. 2021;157(1):52-8.
154. Betlloch-Mas I, Martínez-Miravete MT, Berbegal-DeGracia L, Sánchez-Vázquez L, Sánchez-Payá J. Teledermatology in paediatrics: Health-care impact on the early treatment of infantile haemangiomas. *J Telemed Telecare*. 2021;27(7):424-30.
155. Bui IT, Youssef RM, Gracey LE. An Investigation of Teledermatology Trends in the State of Texas: A Multicenter, Retrospective Cohort Review of an eConsult Service Line. *Telemed J E Health*. 2024;30(6):e1689-e94.
156. Cheung CM, Muttardi K, Chinthapalli S, Ismail F. Pilot Teledermatology Service for Assessing Solitary Skin Lesions in a Tertiary London Dermatology Center. *J Healthc Qual*. 2019;41(1):e1-e6.
157. Lester J, Weinstock MA. Telerriage for Provision of Dermatologic Care: A Pilot Program in the Department of Veterans Affairs. *Journal of Cutaneous Medicine and Surgery*. 2014;18(3):170-3.
158. Mehrtens SH, Shall L, Halpern SM. A 14-year review of a UK teledermatology service: experience of over 40 000 teleconsultations. *Clin Exp Dermatol*. 2019;44(8):874-81.
159. Moreno D, Ferrándiz L, Pérez-Bernal AM, Ríos JJ, Carrasco R, Camacho F. Evaluación de un sistema de filtro de pacientes con lesiones pigmentadas mediante teleconsulta diferida. *Actas Dermo-Sifiliográficas*. 2005;96(4):222-30.
160. Moreno-Ramirez D, Ferrandiz L, Bernal AP, Duran RC, Martín JJ, Camacho F. Teledermatology as a filtering system in pigmented lesion clinics. *J Telemed Telecare*. 2005;11(6):298-303.
161. Sekaran A, Vetsiou E, Shah A, Khoo A. The Use of Teledermatology for Skin Cancer Referrals: A Retrospective Study in a Single Tertiary Centre. *Cureus*. 2024;16(8):e68284.
162. Teoh NSC, Oakley A. A 9-Year Teledermoscopy Service in New Zealand: Retrospective Service Review. *JMIR Dermatol*. 2022;5(4):e36351.
163. Barrera-Valencia C, Perea-Flórez EX. Comparison of Costs in Teledermatology Using PC and Camera Versus Smartphone. *Telemed J E Health*. 2024;30(7):e2087-e95.

164. Berghout RM, Eminović N, de Keizer NF, Birnie E. Evaluation of general practitioner's time investment during a store-and-forward teledermatology consultation. *International Journal of Medical Informatics*. 2007;76:S384-S91.
165. Dobry A, Begaj T, Mengistu K, Sinha S, Droms R, Dunlap R, et al. Implementation and Impact of a Store-and-Forward Teledermatology Platform in an Urban Academic Safety-Net Health Care System. *Telemed J E Health*. 2021;27(3):308-15.
166. Jew OS, Murthy AS, Danley K, McMahon PJ. Implementation of a pediatric provider-to-provider store-and-forward teledermatology system: Effectiveness, feasibility, and acceptability in a pilot study. *Pediatr Dermatol*. 2020;37(6):1106-12.
167. Paradelo-De-La-Morena S, Fernandez-Torres R, Martínez-Gómez W, Fonseca-Capdevila E. Teledermatology: diagnostic reliability in 383 children. *Eur J Dermatol*. 2015;25(6):563-9.
168. Pasadyn SR, McAfee JL, Vij A, Warren CB. Store-and-forward teledermatology impact on diagnosis, treatment and dermatology referrals: Comparison between practice settings. *J Telemed Telecare*. 2022;28(3):177-81.
169. Holmes AN, Chansky PB, Simpson CL. Teledermatology Consultation Can Optimize Treatment of Cutaneous Disease by Nondermatologists in Under-Resourced Clinics. *Telemedicine and e-Health*. 2019;26(10):1284-90.
170. Morton CA, Downie F, Auld S, Smith B, van der Pol M, Baughan P, et al. Community photo-triage for skin cancer referrals: an aid to service delivery. *Clin Exp Dermatol*. 2011;36(3):248-54.

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