

# Search history

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## 1. Scope and general search notes

Publications about medical education, including continuing and work-based education, and including research about people undergoing medical training (e.g. their mental health).

1. Scientific articles (review and original) - not comments, editorials etc.
2. Medicine only, including medicine, surgery, psychiatry (not nursing, veterinary, dental, physio etc.)
3. All levels of education
  - o Foundational / Undergraduate / Premed
  - o Post-graduate / Residency / Junior doctor
  - o Continuing / Specialist / Speciality Registrar

Searches are run either on publication level data (e.g. title, abstract or keyword, depending on database) or journal. For the journal searches, we use the 24 journals classed as central in Medical Education from Maggio, LA, Ninkov, A, Frank, JR, Costello, JA, Artino, AR. Delineating the field of medical education: Bibliometric research approach(es). Med Educ. 2022; 56( 4): 387- 394. <https://doi.org/10.1111/medu.14677> (<https://doi.org/10.1111/medu.14677>).

We do not only rely on journal search as most medical education research is not published in medical education journals (Kyungjoon Lee, Julia S. Whelan, Nancy H. Tannery, Steven L. Kanter & Antoinette S. Peters (2013) 50 years of publication in the field of medical education, Medical Teacher, 35:7, 591-598, <https://doi.org/10.3109/0142159X.2013.786168> (<https://doi.org/10.3109/0142159X.2013.786168>)).

Searches were run in English in the international databases (Web of Science, PubMed and ProQuest Education), and English and Norwegian in CRISTIN.

## 2. Searches in Web of Science

Preliminary test searches done March 2022. Main search done 04.05.2022. An update search was done 10.01.2023 to get publications from 2022 (by filtering for publication year = 2022, gave 79 results). The number of results below are from the main search.

- Platform: Web of Science
- Databases: Web of Science Core Collection (SCIE 1945-present, SSCI 1956-present, AHCI 1975-present, ESCI 2017-present).
- Filters for the final results:
  - o Document type: Articles, Review Articles, Book chapters, Early Access. Books would have been included if there were any found.

The strategy consists of two parts:

- A journal search
- A topic (title-abstract-keyword-keywordPlus) search for terms specific to medical education and medical groups in training, and a topic search that combines generic terms for education and training with terms for medicine, doctors and specialties.

### 1 - Journal search - 44404 (all docs)

Of the 24 journals, 2 were not found in Web of Science (Canadian medical education journal and Journal of graduate medical education).

SO = (ACADEMIC MEDICINE OR ADVANCES IN HEALTH SCIENCES EDUCATION OR ADVANCES IN MEDICAL EDUCATION "AND" PRACTICE OR AFRICAN JOURNAL

### 2 - Topic search: Medical education and medical trainees - 136888 (all docs)

- Using "resident\*" alone is tricky due to surveys about residents of an area.
- Tested "out-placement\*", it did not find anything but noise.
- Used medicine training rather than medical training as the latter is more general (e.g. medical training of the general public).

```

TS=
(
"medical educat*" OR "medical teach*" OR "medicine training"
OR "surgical educat*" OR "surgery educat*" OR "surgical train*" OR "surgery train*"
OR "medical school*" OR "medical degree*" OR "medicine degree*" OR "medical diploma*"
OR "medical student*" OR "medicine student*"
OR "undergraduate medic*" OR "postgraduate medic*" OR "post graduate medic*"
OR "medical clerkship*" OR "clinical clerkship*"
OR "medical rotation*" OR "medical placement*"
OR "registrar*" OR "medical intern*"
OR "resident physician*" OR "medical residen*"
OR "junior doctor*" OR "foundation doctor*" OR "trainee doctor*" OR "trainee surgeon*"
)

```

### 3 - Topic search: Education and medical - 51884 (all docs)

clinical and generic education terms are combined with *medical/doctor* terms to avoid results from nursing/dentistry.

```

TS=
(
("clinical educat*" OR "clinical teach*"
OR "clinical rotation*" OR "clinical placement*"
OR "simulation training" OR "teaching simulation$"
OR "teaching practic*" OR "teaching method*"
OR "teaching and learning" OR "problem based learning" OR "work based learning"
OR "curricul*"
OR "educational supervis*" OR "undergraduate supervis*" OR "postgraduate supervis*" OR "post graduate supervis*" OR "clinical super*"
OR "undergraduate student$" OR "undergraduate training"
OR "postgraduate student$" OR "postgraduate train*" OR "postgraduate speciali*"
OR "graduate student$" OR "graduate train*" OR "graduate speciali*"
OR "continuing education" OR "on the job training"
)
AND ("medicine" OR "medical" OR "medic$" OR "doctor$" OR "physician$" OR "surgeon$" OR "surgery" OR "psychiatry" OR "psychiatrist*"
)
)

```

### 4 - 1 OR 2 OR 3 AND Norway = 841, 772 after limiting by document type

Search URL: <https://www.webofscience.com/wos/woscc/summary/32d54937-9f7c-4704-b391-2e68097e39d3-35832cf8/relevance/1>  
<https://www.webofscience.com/wos/woscc/summary/32d54937-9f7c-4704-b391-2e68097e39d3-35832cf8/relevance/1>

```
(#1 OR #2 OR #3) AND CU="Norway"
```

## 3. Searches in PubMed

### Searches in PubMed, whole database

Preliminary test searches done March 2022. Main search done 04.05.2022. An update search was done 10.01.2023 to get publications from 2022 (using 2022/01/01:2022/12/31[Date - Publication] = 77 results). The number of results below are from the main search.

- Platform: PubMed advanced search interface (<https://pubmed.ncbi.nlm.nih.gov/advanced/>) (<https://pubmed.ncbi.nlm.nih.gov/advanced/>). Combinations of different search lines were done using the "Actions" function.
- Databases: PubMed
- Filters for the final results: None

The strategy consists of two parts:

- A MeSH search for terms specific to medical education and medical groups in training, and a MeSH search that combines generic terms for education and training with terms for medicine, doctors and specialties.
- A title-abstract search for terms specific to medical education and medical groups in training, and a title-abstract search that combines generic terms for education and training with terms for medicine, doctors and specialties.

### MeSH search

Ideas for suitable MeSH terms were from own exploration, and an online resource ("Useful MeSH terms for medical education research" (2009) University of California San Francisco. <https://sites.google.com/site/mededlit2/tidbits> (<https://sites.google.com/site/mededlit2/tidbits>)).

## 1 - Medical education groups - 52392

"students, medical"[MeSH Terms]  
OR "students, premedical"[MeSH Terms]  
OR "faculty, medical"[MeSH Terms]

## 2 - Terms for education - 888706

The education MeSH term includes assessment, simulation training, etc.

"Education"[MeSH Terms]  
OR "models, educational"[MeSH Terms]  
OR "Program Development"[MeSH Terms]

## 3 - 1 AND 2 - Combine medical ed groups AND terms for education - 39026

("Education"[MeSH Terms] OR "models, educational"[MeSH Terms] OR "Program Development"[MeSH Terms]) AND ("students, medical"[MeSH Terms])

## 4 - Medical education terms - 179174

"education, medical"[MeSH Terms]

## 5 - 4 OR 3 - Medical education terms OR the combined education + groups - 191064

"education, medical"[MeSH Terms] OR (("Education"[MeSH Terms] OR "models, educational"[MeSH Terms] OR "Program Development"[MeSH Terms]) AND ("students, medical"[MeSH Terms]))

## 6 - Norway - 141968

"Norway"[Affiliation]

## 7 - 6 AND 5 - 385

"Norway"[Affiliation] AND ("education, medical"[MeSH Terms] OR (("Education"[MeSH Terms] OR "models, educational"[MeSH Terms] OR "Program Development"[MeSH Terms]) AND ("students, medical"[MeSH Terms]))

## Free text search

## 8 - Medical school / education, or people in training - 141698

"medical educat\*"[Title/Abstract] OR "medical teach\*"[Title/Abstract] OR "medicine training"[Title/Abstract]  
OR "surgical educat\*"[Title/Abstract] OR "surgery educat\*"[Title/Abstract] OR "surgical train\*"[Title/Abstract] OR "surgery train\*"[Title/Abstract]  
OR "medical degree\*"[Title/Abstract] OR "medicine degree\*"[Title/Abstract] OR "medical diploma\*"[Title/Abstract] OR "medical school\*"[Title/Abstract]  
OR "medical student\*"[Title/Abstract] OR "medicine student\*"[Title/Abstract]  
OR "undergraduate medic\*"[Title/Abstract] OR "postgraduate medic\*"[Title/Abstract] OR "post graduate medic\*"[Title/Abstract]  
OR "medical clerkship\*"[Title/Abstract] OR "clinical clerkship\*"[Title/Abstract]  
OR "medical rotation\*"[Title/Abstract]  
OR "medical placement\*"[Title/Abstract]  
OR "registrar\*"[Title/Abstract] OR "medical intern\*"[Title/Abstract]  
OR "resident physician\*"[Title/Abstract] OR "medical residen\*"[Title/Abstract]  
OR "junior doctor\*"[Title/Abstract] OR "foundation doctor\*"[Title/Abstract] OR "trainee doctor\*"[Title/Abstract]

## 9 - General/clinical training and education terms - 121013

Note, no hyphens are used. PubMed will find the same results whether you use "post-graduate" or "post graduate".

```
"clinical educat*"[Title/Abstract] OR "clinical teach*"[Title/Abstract]
OR "clinical rotation*"[Title/Abstract] OR "clinical placement*"[Title/Abstract]
OR "teaching simulation*"[Title/Abstract] OR "simulation training"[Title/Abstract]
OR "teaching practic*"[Title/Abstract] OR "teaching method*"[Title/Abstract] OR "teaching and learning"[Title/Abstract]
OR "problem based learning"[Title/Abstract] OR "work based learning"[Title/Abstract]
OR "curricul*"[Title/Abstract]
OR "educational supervis*"[Title/Abstract] OR "postgraduate supervis*"[Title/Abstract] OR "post graduate supervis*"[Title/Abstract]
OR "undergraduate student*"[Title/Abstract] OR "undergraduate train*"[Title/Abstract]
OR "postgraduate student*"[Title/Abstract] OR "postgraduate train*"[Title/Abstract] OR "postgraduate speciali*"[Title/Abstract]
OR "graduate student*"[Title/Abstract] OR "graduate train*"[Title/Abstract] OR "graduate speciali*"[Title/Abstract]
OR "continuing education"[Title/Abstract] OR "on the job training"[Title/Abstract]
```

#### 10 - Medical/doctor terms - 3546148

```
"medicine"[Title/Abstract] OR "medical"[Title/Abstract] OR "medic"[Title/Abstract] OR "medics"[Title/Abstract]
OR "doctor"[Title/Abstract] OR "doctors"[Title/Abstract] OR "physician*"[Title/Abstract]
OR "surgeon*"[Title/Abstract] OR "surgery"[Title/Abstract] OR "psychiatry"[Title/Abstract] OR "psychiatrist*"[Title/Abstract]
```

#### 11 - 9 AND 10 - 53871

Clinical and generic education terms are combined with medical/doctor terms to avoid results from nursing/dentistry/non-medical fields.

```
("medicine"[Title/Abstract] OR "medical"[Title/Abstract] OR "medic"[Title/Abstract] OR "medics"[Title/Abstract] OR "doctor"[Title/Abstract]
```

#### 12 - (8 OR 11) - 165664

```
("medicine"[Title/Abstract] OR "medical"[Title/Abstract] OR "medic"[Title/Abstract] OR "medics"[Title/Abstract] OR "doctor"[Title/Abstract]
```

#### 13 - 6 AND 12 (combine with Norway) = 574

```
"Norway"[Affiliation] AND (((("medicine"[Title/Abstract] OR "medical"[Title/Abstract] OR "medic"[Title/Abstract] OR "medics"[Title/Abstract]
```

#### Combined search

#### 14 - 7 OR 13 = 764

```
("Norway"[Affiliation] AND ("education, medical"[MeSH Terms] OR ("Education"[MeSH Terms] OR "models, educational"[MeSH Terms] OR "P
```

## Searches in PubMed for TNLF

An additional search was run on 09.11.2022 after discovering that affiliation data in PubMed is poor for Tidsskrift for den Norske Legeforening (TNLF). This is a potentially important journal for this question, but many publications were missed by the initial searches (May 2022) because of missing affiliation data from this publisher in PubMed. Web of Science is not a suitable alternative source as it has relatively few publications indexed from this journal. Like for the other PubMed search, an update search was done 10.01.2023 to get all publications from 2022 (= 6 results).

As we can assume most of the content in this journal comes from Norwegian institutions, we decided it was important to include this content via a new search strategy which does not use country-level affiliation. We limited this search to publications from 1990 onwards. We also limited this search by excluding certain publication types - the study aims to only include scientific studies (termed "original articles" and "review articles" in TNLF), but we did not consider a positive filter to be reliable enough. Therefore we excluded publication types where we could be almost certain that they would not be relevant (letters, book reviews, etc. - see the types in the search string below).

#### 1 - TNLF search = 445

This search combines:

- the journal TNLF AND
- the PubMed medical education search (without the affiliation limitation) AND
- a limit of publication year 1990 onwards
- NOT certain publication types.

```
("tidsskrift for den norske laegeforening tidsskrift for praktisk medicin ny raekke"[Journal]
AND ((("medicine"[Title/Abstract] OR "medical"[Title/Abstract] OR "medic"[Title/Abstract] OR "medics"[Title/Abstract] OR "doctor"[Title/Abstract])
AND 1990/01/01:2022/12/31[Date - Publication])
NOT ("autobiography"[Publication Type] OR "bibliography"[Publication Type] OR "biography"[Publication Type] OR "case reports"[Publication Type])
```

## 4. Searches in ProQuest Education

Preliminary test searches done April 2022. Main search done 04.05.2022. An update search was done 10.01.2023 to get publications from 2022 (by filtering for publication year = 2022, 14 results). The number of results below are from the main search.

- Platform: ProQuest, Advanced Search
- Databases: ProQuest Education Database (1988-present).

We expect good coverage from Web of Science, PubMed and CRISTIN, but a supplementary search in ProQuest Education Database was also run. ERIC was also considered, but does not contain affiliation information. The strategy consists of one part:

- A NOFT (anywhere but the full text) search for terms specific to medical education and medical groups in training, and a NOFT search that combines generic terms for education and training with terms for medicine, doctors and specialities.

**1 - Medical trainees - 27024**

```
(
"medical educat*" OR "medical teach*" OR "medicine training"
OR "surgical educat*" OR "surgery educat*" OR "surgical train*" OR "surgery train*"
OR "medical school*" OR "medical degree*" OR "medicine degree*" OR "medical diploma*"
OR "medical student*" OR "medicine student*"
OR "undergraduate medic*" OR "postgraduate medic*" OR "post graduate medic*"
OR "medical clerkship*" OR "clinical clerkship*"
OR "medical rotation*" OR "medical placement*"
OR "registrar*" OR "medical intern*"
OR "resident physician*" OR "medical residen*"
OR "junior doctor*" OR "foundation doctor*" OR "trainee doctor*" OR "trainee surgeon*"
)
```

**2 - Education terms - 286039**

```
(
  ("clinical educat*" OR "clinical teach*"
  OR "clinical rotation*" OR "clinical placement*"
  OR "simulation training" OR "teaching simulation?"
  OR "teaching practic*" OR "teaching method*"
  OR "teaching and learning" OR "problem based learning" OR "work based learning"
  OR "curricul*"
  OR "educational supervis*" OR "undergraduate supervis*" OR "postgraduate supervis*" OR "post graduate supervis*" OR "clinical supervisor*"
  OR "undergraduate student?" OR "undergraduate training"
  OR "postgraduate student?" OR "postgraduate train*" OR "postgraduate speciali*"
  OR "graduate student?" OR "graduate train*" OR "graduate speciali*"
  OR "continuing education" OR "on the job training"
)
```

### 3 - Medical/doctor terms - 237367

("medicine" OR "medical" OR "medic?" OR "doctor?" OR "physician?" OR "surgeon?" OR "surgery" OR "psychiatry" OR "psychiatrist?")

4 - 2 AND 3 - 19134

5 - 1 OR 4 - 37913

S4 OR S1

6 - Norway - 2220

au ("Norway")

7 - Limit results to Norway - 61

S5 AND S6

## 5. Search in CRISTIN via Tableau DUCT

CRISTIN is the national CRIS (current research information system) in Norway. This data source has almost complete coverage of scientific publications from all member institutions 2011-2021, regardless of language or format. All major higher education institutions as well as many research institutes and public health regions are members.

- Platform/tool: The datasource was accessed via a Tableau-based server available via login to Norwegian Cristin institutions ("DUCT"). The data is also available publicly via an API (<https://www.cristin.no/tjenester/api/> (<https://www.cristin.no/tjenester/api/>)). Searches were run using Tableau (v. 2021.4), by creating an IF CONTAINS variable in the data. NOTE: Phrases/words are automatically truncated both forwards and backwards from the start/end of the phrase, unless manually prevented by including a space before/after.
- Database: We used a file on the server which contains all outputs in CRISTIN, FOR\_data\_sted\_total. This file thus contains a almost complete record of all Norwegian scientific publications from CRISTIN institutions from 2011 up to and including 2021.
- Filters: Searched for all publications within Cristin timeframe (2011-2020) within a filter called "NVI subset". "NVI subset" limits the set to publications which are deemed "scientific" in the national system. The definition of "scientific" effectively covers the publication types interesting for our review; the criteria are that the work gives new insight, is presented in a form which makes the results verifiable or usable in new research, is in a language and has a distribution which makes it accessible for the majority of researchers interested in it, and is in a publication channel with peer review routines (CRISTIN (updated Oct 2020) Reporting instructions (NVI) . <https://www.cristin.no/english/resources/reporting-instructions/> (<https://www.cristin.no/english/resources/reporting-instructions/>) (retrieved 02.06.2022)).

The strategy in CRISTIN takes the same basic form as the Web of Science and PubMed strategies, but was adapted to the fields available in this data source. The strategy consists of two parts:

- A journal search
- A title search for terms specific to medical education and medical groups in training, and a title search that combines generic terms for education and training with terms for medicine, doctors and specialities. In Norwegian, we also use journal classification to help with this search (see under).

Total results = 488

**Journal search = 95**

Note that this search will also find any journals containing "academic medicine" or "medical education" in their names due to the automatic truncation.

```

IF CONTAINS(LOWER([journal]), "academic medicine" )
OR CONTAINS(LOWER([journal]), "advances in health sciences education" )
OR CONTAINS(LOWER([journal]), "advances in medical education and practice" )
OR CONTAINS(LOWER([journal]), "african journal of health professions education" )
OR CONTAINS(LOWER([journal]), "anatomical sciences education" )
OR CONTAINS(LOWER([journal]), "bmc medical education" )
OR CONTAINS(LOWER([journal]), "bmj simulation & technology enhanced learning" )
OR CONTAINS(LOWER([journal]), "canadian medical education journal" )
OR CONTAINS(LOWER([journal]), "clinical teacher" )
OR CONTAINS(LOWER([journal]), "education for health" )
OR CONTAINS(LOWER([journal]), "focus on health professional education" )
OR CONTAINS(LOWER([journal]), "gms journal for medical education" )
OR CONTAINS(LOWER([journal]), "international journal of medical education" )
OR CONTAINS(LOWER([journal]), "journal of continuing education in the health professions" )
OR CONTAINS(LOWER([journal]), "journal of educational evaluation for health professions" )
OR CONTAINS(LOWER([journal]), "journal of graduate medical education" )
OR CONTAINS(LOWER([journal]), "journal of medical education and curricular development" )
OR CONTAINS(LOWER([journal]), "journal of surgical education" )
OR CONTAINS(LOWER([journal]), "medical education" )
OR CONTAINS(LOWER([journal]), "medical education online" )
OR CONTAINS(LOWER([journal]), "medical teacher" )
OR CONTAINS(LOWER([journal]), "perspectives on medical education" )
OR CONTAINS(LOWER([journal]), "simulation in healthcare-journal of the society for simulation in healthcare" )
OR CONTAINS(LOWER([journal]), "teaching and learning in medicine" )
THEN "MedEd"
ELSE "non"
END

```

## Title search

In English, we have searched for terms in the title using the same two part approach as Web of Science and PubMed.

In Norwegian we can take a slightly broader approach as there is a lower volume of publications. We take the same two part approach as before, but also include generic education terms in titles in publications in journals classified as in the medical field by the Norwegian Publishing Indicator (NPI subject fields <https://npi.hkdir.no/fagfeltoversikt> (<https://npi.hkdir.no/fagfeltoversikt>)). This approach is not used in English as it is too broad - terms such as "assessment" are too generic (e.g. there are lots of irrelevant results about medical assessments when searching for "assessment" in a oncology journal).

Title search, English = 328

```

IF (
CONTAINS(LOWER([result_title]), "clerkship" )
OR CONTAINS(LOWER([result_title]), "registrar" )
OR CONTAINS(LOWER([result_title]), "junior doctor" )
OR CONTAINS(LOWER([result_title]), "foundation doctor" )
)
THEN "MedEd"

ELSEIF ((
CONTAINS(LOWER([result_title]), "educat" )
OR CONTAINS(LOWER([result_title]), "teach" )
OR CONTAINS(LOWER([result_title]), "degree" )
OR CONTAINS(LOWER([result_title]), "diploma" )
OR CONTAINS(LOWER([result_title]), "train" )
OR CONTAINS(LOWER([result_title]), "school" )
OR CONTAINS(LOWER([result_title]), "student" )
OR CONTAINS(LOWER([result_title]), "graduate" )
OR CONTAINS(LOWER([result_title]), "clerkship" )
OR CONTAINS(LOWER([result_title]), "rotation" )
OR CONTAINS(LOWER([result_title]), "intern" )
OR CONTAINS(LOWER([result_title]), "resident" )

OR CONTAINS(LOWER([result_title]), "pedagog" )
OR CONTAINS(LOWER([result_title]), "learn" )
OR CONTAINS(LOWER([result_title]), "curricul" )
OR CONTAINS(LOWER([result_title]), "programme design" )
OR CONTAINS(LOWER([result_title]), "classroom" )
OR CONTAINS(LOWER([result_title]), "lectur" )
OR CONTAINS(LOWER([result_title]), "assessment" )
OR CONTAINS(LOWER([result_title]), "feedback" )
OR CONTAINS(LOWER([result_title]), "supervis" )
OR CONTAINS(LOWER([result_title]), "mentor" )
)
AND (
CONTAINS(LOWER([result_title]), "medic" )
OR (CONTAINS(LOWER([result_title]), "doctor") AND NOT CONTAINS(LOWER([result_title]), "doctoral"))
OR CONTAINS(LOWER([result_title]), "physician" )
))

THEN "MedEd"
ELSE "non"
END

```

Title search, Norwegian = 94



```

IF ( (
CONTAINS (LOWER([result_title]), "utdann"      )
OR CONTAINS (LOWER([result_title]), "pedagog"   )
OR CONTAINS (LOWER([result_title]), "undervis"  )
OR CONTAINS (LOWER([result_title]), "l ring"    )
OR CONTAINS (LOWER([result_title]), "studieplan" )
OR CONTAINS (LOWER([result_title]), "studieprogr" )
OR CONTAINS (LOWER([result_title]), "studenter" )
OR CONTAINS (LOWER([result_title]), "foreles"   )
OR CONTAINS (LOWER([result_title]), "klasserom"  )
OR CONTAINS (LOWER([result_title]), " vurdering" )
OR CONTAINS (LOWER([result_title]), "evaluerings" )
OR CONTAINS (LOWER([result_title]), "veiled"    )
OR CONTAINS (LOWER([result_title]), "supervis"   )
OR CONTAINS (LOWER([result_title]), "ferdighet"  )
OR CONTAINS (LOWER([result_title]), "simulering" )
OR CONTAINS (LOWER([result_title]), "praksis"    )
OR CONTAINS (LOWER([result_title]), "turnus"     )
OR CONTAINS (LOWER([result_title]), "utplassering" )
)
AND (
CONTAINS (LOWER([result_title]), "medisin"      )
OR CONTAINS (LOWER([result_title]), " lege "    )
OR CONTAINS (LOWER([result_title]), " leger"     )
OR CONTAINS (LOWER([result_title]), "fastlege"   )
OR CONTAINS (LOWER([scientific_field_npi]), "anestesi" )
OR CONTAINS (LOWER([scientific_field_npi]), "dermatologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "endokrinologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "gastroenter" )
OR CONTAINS (LOWER([scientific_field_npi]), "generell medisin" )
OR CONTAINS (LOWER([scientific_field_npi]), "geriatri" )
OR CONTAINS (LOWER([scientific_field_npi]), "gynekologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "hematologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "hjerte" )
OR CONTAINS (LOWER([scientific_field_npi]), "infeksjon" )
OR CONTAINS (LOWER([scientific_field_npi]), "kirurgiske" )
OR CONTAINS (LOWER([scientific_field_npi]), "nefrologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "nevrologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "onkologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "pediatri" )
OR CONTAINS (LOWER([scientific_field_npi]), "radiologi" )
OR CONTAINS (LOWER([scientific_field_npi]), "revmatologi" )
OR CONTAINS (LOWER([scientific_field_npi]), " re-nese" )
OR CONTAINS (LOWER([scientific_field_npi]), " yesykdommer" )
))
THEN "MedEd"
ELSE "non"
END

```