

Table S1: Search Strategies

Search String for Ovid (June 2022)

Set	Search Statement	Results
1.	exp Primary Health Care/	
2.	exp General Practice/	
3.	general practitioners/ or physicians, family/ or physicians, primary care/	
4.	general practi*.tw.	
5.	(primary adj3 care).tw.	
6.	(family adj3 (practi* or doctor or physician*)).tw.	
7.	or/1-6	
8.	exp medical records/	
9.	exp routinely collected health data/	
10.	(routine* adj3 (collect* or record* or document*)).tw.	
11.	health servic* research.tw.	
12.	(electronic adj3 record*).tw.	
13.	CONTinuous morbidity registration Epidemiologic NeTwork.tw.	
14.	Disease Analyzer.tw.	
15.	or/8-14	
16.	exp Germany/	
17.	German*.tw.	
18.	or/16-17	
19.	7 and 15 and 18	415

Search String LIVIVO (June 2022)

Set	Search Statement	Results
1	Haus?rzt	
2	Primär?rzt*	
3	Allgemein?rztlich*	
4	Allgemeinmedizin*	
5	Ambulant*	
6	OR 1-5	
7	Routinedaten*	
8	BDT	
9	Elektronische* Patientenakte*	
10	OR 7-9	
11	6 AND 10	420

Pubmed (NLM)

Search terms (June 2022):

"Germany"[All Fields] AND "Disease Analyzer"[All Fields]

210 studies were imported

Table S3: Collected variables

		IQVIA™ Disease Analyzer	MedVip	CONTENT	BeoNet Hannover	RADARplus	BeoNet Halle
Physician types	All ambulatory	✓	-	-	-	-	✓
	General Practitioner	✓	✓	✓	✓	✓	✓
	Pneumologists	✓	-	-	✓	unknown	✓
	Paediatricians	✓	-	-	unknown	unknown	✓
	Internists	✓	-	✓	unknown	unknown	✓
Physician demographics	Physician number	-	unknown	-	✓	unknown	✓
	Age	✓	-	✓	unknown	-	✓
	Gender	✓	-	✓	unknown	-	✓
	Years in practice	✓	-	✓	unknown	-	✓
Practices demographics	Type	✓	-	✓	✓	✓	✓
	Region	✓	✓	✓	✓	✓	✓
		east or west		east or west			east or west
	Frequency of patients	✓	unknown	unknown	✓	unknown	✓
	No. of doctors	✓	unknown	✓	✓	unknown	✓
	No. of employees	✓	unknown	✓	✓	unknown	✓
Patient demographics	Age	✓	✓	✓	✓	✓	✓
	Gender	✓	✓	✓	✓	✓	✓
	Patient since	-	-	-	✓	unknown	✓
	Employment	-	-	✓	✓	-	-
	Medical insurance status	✓ (private or statutory)	-	✓ (private or statutory)	✓ (private or statutory)	unknown	✓ (private or statutory)
	Medical insurance provider	✓	-	-	✓	unknown	✓
	Region	✓	-	✓	✓	unknown	✓
	Nationality	east or west unknown	-	✓	✓	unknown	✓
BMI and risk factors	BMI; smoking and alcohol recording		smoking	unknown	BMI, risk factors, allergies	-	BMI, BP, HR, allergies, operations,

	rarely documented (~5%)					smoking status, risk factors
Social history	unknown	-	unknown	unknown	unknown	-
Pregnancy or family status	pregnancy, gynecologist records; family data incomplete	-	unknown	pregnancy, number of children	unknown	pregnancy, number of children
Diagnosis	diagnosis, ICD 10 codes and original text	diagnosis, ICD 10 codes and original text, billing codes	diagnosis, ICD 10 codes, ICPC codes and original text, reasons for encounter, medical history	diagnosis, ICD 10 codes, medical history	diagnosis, ICD 10 codes, medical history	diagnosis name, ICD 10 codes, medical history,
Billing codes	unknown	yes	yes	yes	unknown	yes
procedures, findings, therapies	lab test results; other test results variably available or can be requested from paper files	unknown	lab test results	lab and X-ray test results, blood pressure, internal and external findings,	unknown	lab and X-ray test results, blood pressure, internal and external findings
drug information	drug name, route, dosage, frequency, duration, cost of therapy	drug name	drug name, long term medication, dosage, cost of therapy	drug name and ATC code, (long term) medication, cost of therapy	drug name, long-term medication, date	drug name and ATC code, (long term) medication, dosage, frequency, cost of therapy
Healthcare utilization	practice visits, referrals, sick leave, hospitalizations	unknown	practice visits, referrals, sick leave, hospitalizations	practice visits, referrals, sick leave, hospitalizations	unknown	practice visits, referrals, sick leave, hospitalizations
Images (e.g X-ray)	unknown	no	no	no	no	no
Projects obtaining additional data beyond usual care	yes, Quality of Life questionnaires upon request	yes, study specific	n. a.	yes, study specific	yes, study specific	yes, study specific
Missing Data	Social and economic data (salary, family status, employment), secondary care data	social and economic data (salary, family status, employment)	social and economic data (salary, family status, employment), secondary care data,	social and economic data (salary, family status, employment)	social and economic data (salary, family status, employment)	social and economic data (salary, family status, employment)

Table S4: Data evaluation and access and recruitment

	IQVIA™ Disease Analyzer	CONTENT	MedVip	BeoNet Hannover	BeoNet Halle	RADARplus	
In-house data evaluation	✓	✓	✓	✓	✓	✓	
Feedback reports to practices	✓	✓	✓	✓	✓	n.a.	
Interim project reports	n.a.	✓	✓	✓	✓	n.a.	
External data access	✓	-	-	-	n.a.	n.a.	
Financial incentives	Yes, but amount unknown	Quarterly 375 € per practice	500 € once per physician	-	2 € per signed broad consent	n.a.	
Type of physician support	support how to use the software	Training in ICPC coding, hotline for software problems & regular quality circle meetings	On-site support to extract requested data.	establishing a practice research infrastructure	establishing a practice research infrastructure	On-site support to extract requested data.	
Recruitment Strategy	Snowball	n.a.	-	-	✓	✓	n.a.
	Presentations	n.a.	✓	-	n.a.	✓	✓
	Circulars	n.a.	✓	✓ with 2 reminders	n.a.	-	✓ E-Mail & written
	Articles	n.a.	✓	-	✓	✓	✓
	Homepage	n.a.	✓	-	✓	✓	✓
Patient recruitment through	-	-	Attending physician	Attending physician	Trusted third party	Trusted third party	
n.a.: not available							