

Artificial intelligence in Radiology; 100 commercially available products and their scientific evidence

Supplementary material

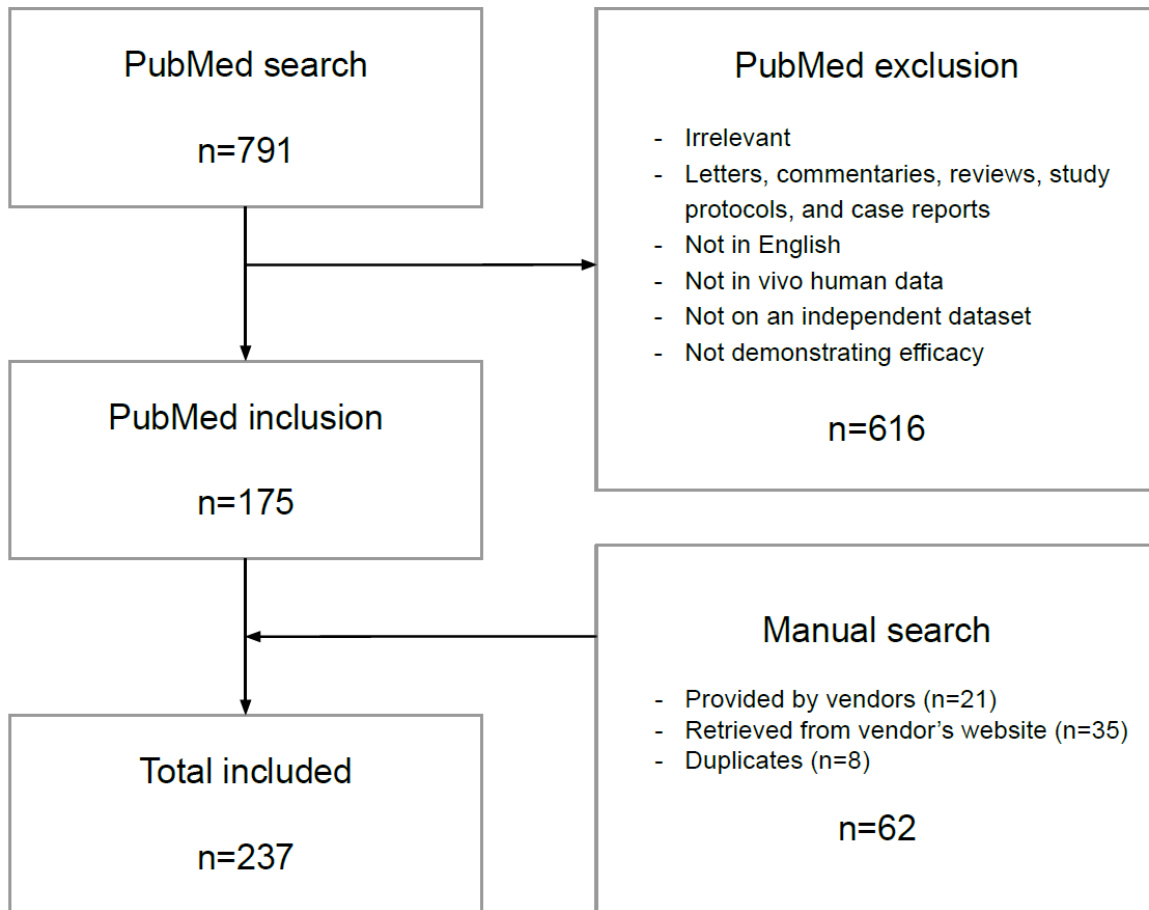


Figure S1: Flowchart of literature inclusion

Table S1: Literature search hits and inclusion per vendor

Company	Query PubMed	Hits PubMed	Included PubMed	Included manual	Included total
Aidence	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Aidence" OR "Veye Chest"))	5	0	0	0
Aidoc	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND "Aidoc")	1	1	1	2
AmCad BioMed	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("AmCAD Biomed" OR "AmCAD-UT"))	5	4	1	5
Arterys	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND "Arterys")	6	0	0	0
Avicenna.ai	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (avicenna AND (LVO OR ICH) OR "CINA LVO" OR "CINA ICH"))	1	0	0	0
AZmed	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Azmed" OR "Rayvolve"))	0	0	0	0
Behold.ai	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Behold.ai OR "Red Dot"))	43	0	0	0
BioMind	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND Biomind)	0	0	0	0
Brainminer	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Brainminer OR Diadem))	23	0	0	0
Brainomix	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Brainomix" OR "e-Stroke Suite" OR "e-ASPECTS" OR "e-CTA"))	51	15	1	16
Braintale	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (braintale OR brainquant))	0	0	0	0

Combinostics	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Combinostics OR "cNeuro cDSI" OR "cNEURO cMRI" OR "PredictND"))	35	3	1	4
Cortechs.ai*	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Cortechs Labs" OR "NeuroQuant"))	35	16	2	18
Densitas	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Densitas OR densitasai))	1	1	0	1
Future processing	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Future Processing" OR "Sens.ai"))	19	1	0	1
Gleamer.ai	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (BoneView OR Gleamer))	0	0	0	0
HeartFlow	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Heartflow AND FFRCT))	37	18	5	23
Hera-mi	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Hera-Mi" OR "Breast-SlimView"))	0	0	0	0
Hologic	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND Quantra AND "breast")	20	8	9	17
iCAD	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (iCAD AND (profound OR PowerLook)))	1	0	0	0
icometrix	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (icometrix OR icobrain OR msmetrix))	63	15	0	15
ImageBiopsy Lab	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Image Biopsy Lab" OR "IB Lab KOALA"))	1	0	1	1
Imbio	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND Imbio AND Lung)	25	6	1	7
Infervision	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (infervision OR inferread))	13	0	0	0

iSchemaView	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (iSchemaView OR "RAPID ASPECTS" OR "RAPID ICH" OR "RAPID CTA"))	40	3	1	4
JLK Inc.	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND "JLK Inspection")	1	0	0	0
Kheiron Medical Technologies	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND "Kheiron Medical Technologies")	4	0	0	0
Lunit	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Lunit OR "Insight CXR"))	17	5	0	5
MaxQ	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (MaxQ OR Accipio))	12	0	0	0
mediaire	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (mediaire OR mdbrain))	0	0	0	0
Merantix Healthcare	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Vara OR Merantix) AND breast)	1	0	0	0
MeVis Medical Solutions AG	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Fraunhofer MeVis" OR Veolity) AND (chest OR lung))	29	0	11	11
Mindshare Medical	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Mindshare Medical" OR "RevealAI"))	1	0	0	0
Nico.Lab	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Nico-Lab OR Nico.lab OR StrokeViewer))	6	0	0	0
Oxipit	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Oxipit OR ChestEye))	1	0	0	0
Pixyl	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Pixyl))	2	0	0	0
Quantib	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND Quantib)	10	0	0	0

QUIBIM	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND Quibim	18	1	0	1
Qure.ai	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Qure.ai OR qXR OR qER)	12	5	0	5
QView Medical	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Qview Medical" OR QVCAD)	3	1	0	1
Radiobotics	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (radiobotics OR rbknee)	0	0	0	0
Resonance Health	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Resonance Health" OR FerriSmart OR "HepaFat-Scan")	8	2	0	2
Riverain Technologies	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Riverain OR ClearRead)	10	8	12	20
ScreenPoint Medical	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (ScreenPoint OR Transpara)	13	3	1	4
Siemens Healthineers	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("AI-Rad Companion" OR "AI Rad Companion")	1	1	0	1
SyntheticMR	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (SyntheticMR OR SyMRI)	29	5	0	5
Thirona	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Thirona OR CAD4TB OR LungQ)	26	10	1	11
VIDA	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND LungPrint	0	0	0	0
Visiana	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Visiana OR BoneXpert)	31	14	7	21
Viz.ai	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Viz.ai" OR "Viz LVO" OR "Viz CTP")	16	0	0	0
Volpara Solutions	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Volpara OR VolparaDensity)	90	28	7	35

VUNO	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND (Vuno OR BoneAge))	21	1	0	1
Zebra Medical Vision	((("2015"[Date - Publication] : "3000"[Date - Publication])) AND ("Zebra medical vision"))	4	0	0	0

*Cortechs Labs name was changed to Cortechs.ai in the time between the analysis and publication

Table S2: Summary of peer-reviewed publications per product.

Vendor	Product	Papers	Independent	Level of efficacy								Data origin		
				1c	1t	2	3	4	5	6	Scanners	Centers	Countries	
Abdomen														
Resonance Health	FerriSmart	2	2	0	2	0	0	0	0	0	0	2	2-5	1
Breast														
Densitas	densitasai	1	1	0	0	1	0	0	0	0	1	1	1	
Hologic	Quantra	17	13	1	3	14	0	0	0	0	2	>20	5-10	
QView Medical	QVCAD	1	1	0	0	0	1	0	0	0	1	1	1	
ScreenPoint Medical	Transpara	4	0	0	0	3	1	0	0	0	>3	11-20	5-10	
Volpara Solutions	VolparaDensity	35	21	5	8	20	4	2	0	0	>3	>20	11-20	
Cardio														
HeartFlow	HeartFlow FFRCT Analysis	23	1	3	1	8	1	6	9	1	>3	>20	11-20	
Chest														
Imbio	Lung Texture Analysis	5	2	3	0	2	0	0	0	0	2	6-10	2-5	

Aidoc	Intracranial Hemorrhage	2	2	0	0	2	0	0	0	0	2	5-10	1
Brainomix	e-ASPECTS	15	8	5	2	11	0	1	0	0	>3	>20	11-20
Brainomix	e-CTA	1	0	0	0	1	1	0	0	0	>3	2-5	?
Combinostics	cNeuro cMRI	4	1	0	0	3	0	0	0	0	3	6-10	2-5
Cortechs.ai	NeuroQuant	18	15	1	5	10	2	1	0	0	3	11-20	2-5
Future Processing	Sens.ai	1	0	0	0	0	1	0	0	0	?	?	?
icometrix	icobrain tbi	1	0	0	0	1	0	0	0	0	>3	>20	11-20
icometrix	icobrain dm	3	0	2	0	1	0	0	0	0	>3	5-10	2-5
icometrix	icobrain ms	11	3	3	4	4	0	0	0	0	3	>20	6-10
iSchemaView	Rapid ASPECTS	3	2	0	0	3	0	0	0	0	1	2-5	1
iSchemaView	Rapid CTA	1	0	0	0	1	0	0	0	0	1	1	1
Qure.ai	qER	1	0	0	0	1	0	0	0	0	0	6-10	1
SyntheticMR	SyMRI Neuro	5	3	1	4	0	0	0	0	0	3	2-5	2-5
Other													
AmCad BioMed	AmCAD-UT®	5	3	0	0	5	2	2	0	0	3	2-5	2-5

The following companies were evaluated, but resulted in no included papers: Veye Chest (Aidence), Pulmonary embolism (Aidoc), C-Spine (Aidoc), Large Vessel Occlusion (Aidoc), Cardio AI (Arterys), CINA LVO (Avicenna.ai), CINA ICH (Avicenna.ai), Rayvolve (AZmed), Red Dot (Behold.ai), BioMind (BioMind), Diadem (Brainminer), BrainQuant (Brintale), Boneview (Gleamer.ai), Breast Slim-View (Hera-mi), ProFound AI for Digital Breast Tomosynthesis (iCAD), ProFound AI for 2D Mammography (iCAD), icobrain ep (icometrix), IB Lab PANDA (ImageBiopsy Lab), InferRead DR Tuberculosis (Infervision), InferRead CT Stroke (Infervision), InferRead CT Bone (Infervision), InferRead CT Pneumonia (Infervision), InferRead CT Lung (Infervision), InferRead DR Chest (Infervision), Rapid ICH (iSchemaView), JAD-02K (JLK Inc.), JBA-01K (JLK Inc.), JBS-04K (JLK Inc.), JLD-02K (JLK Inc.), JBS-01K

(JLK Inc.), JPC-01K (JLK Inc.), JLD-01K (JLK Inc.), JBD-01K (JLK Inc.), Mia (Kheiron Medical Technologies), Accipio Ix (MaxQ), mdbrain (mediaire), Vara (Merantix Healthcare), RevealAI Lung (Mindshare Medical), Thrombus location (Nico.Lab), Haemorrhage detection (Nico.Lab), ChestEye CAD (Oxipit), Pixyl.Neuro.MS (Pixyl), Pixyl.Neuro.BV (Pixyl), Pixyl.Neuro.FL (Pixyl), Quantib ND (Quantib), Liver Fat & Iron Concentration (QUIBIM), Lung densities (QUIBIM), White Matter Lesions- demyelination (QUIBIM), Textures analysis (QUIBIM), Cartilage T2 Mapping (QUIBIM), RBknee (Radiobotics), ClearRead CT - Compare (Riverain Technologies), ClearRead Xray - Confirm (Riverain Technologies), AI-Rad Companion Brain MR (Siemens Healthineers), AI-Rad Companion Prostate MR (Siemens Healthineers), AI-Rad Companion Chest X-ray (Siemens Healthineers), LungQ (Thirona), LungPrint® Discovery (VIDA), Viz LVO (Viz.ai), Mammography (Zebra Medical Vision), Triage Pneumothorax (Zebra Medical Vision), Bone Health (Zebra Medical Vision), Triage Intracranial Hemorrhage (Zebra Medical Vision), Triage Pleural Effusion (Zebra Medical Vision)