Diagnostik vid misstänkt kronisk kranskärlssjukdom

Bilagor

Rapport 2024:02

HTA
REGION STOCKHOLM

Stockholm centrum för hälsoekonomi
REGION STOCKHOLM

Innehållsförteckning

Bilaga 1 - Litteratursökning

Fråga 1: PTP bedömningsmodell

Cochrane Library via Wiley 2023-05-10

(Search updated 2023-12-19, see below)

	Search terms	Items found
	Patient, problem	
#1.	MeSH descriptor: [Myocardial Ischemia] explode all trees	36 843
#2.	(myocardial ischemia* OR myocardial ischaemia* OR ischemic heart disease* OR cardiac ischemia* OR cardiac ischaemia* OR coronary artery disease* OR chronic coronary syndrome* OR CAD):ti,ab,kw	44 676
#3.	**1 OR 2**	61 384
	Intervention	
#4.	(pretest probability OR pretest probabilities OR pre-test probability OR pre-test probabilities OR PTP):ti,ab,kw	630
#5.	**3 AND 4**	120
Final	**NOT (CT.gov OR ICTRP)**	**96**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
:ti,ab,kw= Term found in title, abstract or keywords
* = Truncation

Sökning uppdaterad: 2023-12-19, 3 träffar

Embase via Elsevier 2023-05-10
(Search updated 2023-12-19, see below)

	Search terms	Items found
	Patient, problem	
#1.	Coronary artery disease/exp	404 141
#2.	Heart muscle ischemia/exp	101 039
#3.	myocardial ischemia*:ti,ab,kw OR myocardial ischaemia*:ti,ab,kw OR ischemic heart disease*:ti,ab,kw OR cardiac ischemia*:ti,ab,kw OR cardiac ischaemia*:ti,ab,kw OR coronary artery disease*:ti,ab,kw OR chronic coronary syndrome*:ti,ab,kw OR cad:ti,ab,kw	287 647
#4.	**1 OR 2 OR 3**	589 345

	Intervention	
#5.	pretest probability:ti,ab,kw OR pretest probabilities:ti,ab,kw OR pre-test probability:ti,ab,kw OR pre-test probabilities:ti,ab,kw OR ptp:ti,ab,kw	12 136
#6.	**4 AND 5**	1 376
Final	**Article, review, article in press**	**758**

/exp = Includes terms found below this term in the EMTREE hierarchy
:ab,ti,kw= Term found in title and/or abstract and/or keyword
* = Truncation

Sökning uppdaterad: 2023-12-19, 60 träffar

PubMed via NLM 2023-05-10

(Search updated 2023-12-19, see below)

	Search terms	**Items found**
	Patient, problem	
#1.	Myocardial Ischemia[Mesh]	469 218
#2.	myocardial ischemia*[ti/ab] OR myocardial ischaemia*[ti/ab] OR ischemic heart disease*[ti/ab] OR cardiac ischemia*[ti/ab] OR cardiac ischaemia*[ti/ab] OR coronary artery disease*[ti/ab] OR chronic coronary syndrome*[ti/ab] OR CAD[ti/ab]	183 768
#3.	**1 OR 2**	545 579
	Intervention	
#4.	pretest probability[ti/ab] OR pretest probabilities[ti/ab] OR pre-test probability[ti/ab] OR pre-test probabilities[ti/ab] OR PTP[ti/ab]	8 479
Final	**3 AND 4**	**760**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
[ti/ab] = Term found in title and/or abstract
* = Truncation

Sökning uppdaterad: 2023-12-19, 45 träffar

Antal träffar: 1 614 + 108 = 1 722

Efter borttag av dubbletter: 936 + 53 = 989

Citeringssökning på PMID 33180904 2023-05-16: 22 träffar (efter borttag av 2 dubbletter)

Totalt antal träffar: 989 + 22 = 1 011

Fråga 2: Effekter av DT kranskärl

Cochrane Library via Wiley 2023-10-04		
	Search terms	**Items found**
	Patient, problem	
#1.	MeSH descriptor: [Myocardial Ischemia] explode all trees	37 112
#2.	(myocardial ischemia* OR myocardial ischaemia* OR ischemic heart disease* OR cardiac ischemia* OR cardiac ischaemia* OR coronary artery disease* OR chronic coronary syndrome* OR CAD OR coronary arterioscleros* OR coronary atherosclerosis*):ti,ab,kw	46 396
#3.	**1 OR 2**	62 950
	Intervention	
#4.	MeSH descriptor: [Computed Tomography Angiography] explode all trees	429
#5.	(coronary computed tomograph* angiograph* OR coronary CT angiograph* OR CCTA):ti,ab,kw	2 410
#6.	**4 OR 5**	2 581
#7.	**3 AND 6**	1 929
Final	**Limits: Eng, publ. year >= 2019 NOT (CT.gov OR ICTRP)**	**434**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
:ti,ab,kw= Term found in title, abstract or keywords
* = Truncation

Embase via Elsevier 2023-10-04		
	Search terms	**Items found**
	Patient, problem	
#1.	Coronary artery disease/exp	413 859
#2.	Heart muscle ischemia/exp	102 146
#3.	Coronary atherosclerosis/de	36 227
#4.	myocardial ischemia*:ti,ab,kw OR myocardial ischaemia*:ti,ab,kw OR ischemic heart disease*:ti,ab,kw OR cardiac ischemia*:ti,ab,kw OR cardiac ischaemia*:ti,ab,kw OR coronary artery disease*:ti,ab,kw OR chronic coronary syndrome*:ti,ab,kw OR cad:ti,ab,kw OR coronary arterioscleros*:ti,ab,kw OR coronary atherosclerosis*:ti,ab,kw	302 564
#5.	**1 OR 2 OR 3 OR 4**	604 205
	Intervention	
#6.	Computed tomographic angiography/exp	88 584
#7.	coronary computed tomograph* angiograph*:ti,ab,kw OR coronary CT angiograph*:ti,ab,kw OR CCTA:ti,ab,kw	11 404
#8.	**6 OR 7**	90 642

#9.	**5 AND 8**	19 881
Final	**Limits: Eng, publ. year >= 2019** **Article, review, article in press**	**5 755**

/exp = Includes terms found below this term in the EMTREE hierarchy
/de = Term from the EMTREE controlled vocabulary
:ab,ti,kw= Term found in title and/or abstract and/or keyword
* = Truncation

PubMed via NLM 2023-10-04

	Search terms	**Items found**
	Patient, problem	
#1.	Myocardial Ischemia[Mesh]	473 066
#2.	myocardial ischemia*[ti/ab] OR myocardial ischaemia*[ti/ab] OR ischemic heart disease*[ti/ab] OR cardiac ischemia*[ti/ab] OR cardiac ischaemia*[ti/ab] OR coronary artery disease*[ti/ab] OR chronic coronary syndrome*[ti/ab] OR CAD[ti/ab] OR coronary arterioscleros*[ti/ab] OR coronary atherosclero*[ti/ab]	193 133
#3.	**1 OR 2**	553 359
	Intervention	
#4.	Computed tomography angiography[Mesh]	14 868
#5.	coronary computed tomograph* angiograph*[ti/ab] OR coronary CT angiograph*[ti/ab] OR CCTA[ti/ab]	19 421
#6.	**4 OR 5**	30 319
#7.	**3 AND 6**	12 335
Final	**Limits: Eng, publ. year >= 2019**	**3 830**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
[ti/ab] = Term found in title and/or abstract
* = Truncation

Totalt antal träffar: 10 019

Efter borttag av dubbletter: 7 257

Fråga 3: Hälsoekonomiska aspekter

Embase via Elsevier 2023-04-19		
	Search terms	**Items found**
	Patient, problem	
#1.	Coronary artery disease/exp	402 779
#2.	coronary artery disease*: ti,ab,kw OR CAD: ti,ab,kw	185 862
#3.	**1 OR 2**	461 681
#4.	Thorax pain/exp	115 076
#5.	Stable angina pectoris/exp	12 995
#6.	angina:ti,ab,kw OR chest pain: ti,ab,kw	145 168
#7.	**4 OR 5 OR 6**	208 040
	Intervention	
#8.	Computed tomographic angiography/exp	83 393
#9.	coronary computed tomograph* angiograph*:ti,ab,kw OR coronary CT angiograph*:ti,ab,kw OR CCTA:ti,ab,kw	8 202
#10.	**8 OR 9**	85 098
#11.	**3 AND 7 AND 10**	4 571
	Study type: Economic evaluations[1]	
#12.	'economics'/de OR 'cost'/de OR 'health economics'/exp OR 'budget'/de OR budget*:ti,ab,kw OR economic*:ti,ab,kw OR cost:ti,ab,kw OR costs:ti,ab,kw OR costly:ti,ab,kw OR costing:ti,ab,kw OR price:ti,ab,kw OR prices:ti,ab,kw OR pricing:ti,ab,kw OR pharmacoeconomic*:ti,ab,kw OR 'pharmaco economic*':ti,ab,kw OR expenditure:ti,ab,kw OR expenditures:ti,ab,kw OR expense:ti,ab,kw OR expenses:ti,ab,kw OR financial:ti,ab,kw OR finance:ti,ab,kw OR finances:ti,ab,kw OR financed:ti,ab,kw OR (cost* NEAR/2 (effective* OR utilit* OR benefit* OR minimi* OR analy* OR outcome OR outcomes)):ti,ab,kw OR (value NEAR/2 (money OR monetary)):ti,ab,kw OR 'statistical model'/de OR 'economic model*':ti,ab,kw OR 'probability'/de OR markov:ti,ab,kw OR 'monte carlo method'/de OR 'monte carlo':ti,ab,kw OR 'decision theory'/de OR 'decision tree'/de OR (decision* NEAR/2 (tree* OR analy* OR model*)):ti,ab,kw	2637 981
#13.	**11 AND 12**	548
Final	**Limits: Eng, publ. year >= 2019** **Article, review, article in press**	**116**

/exp = Includes terms found below this term in the EMTREE hierarchy
/de = Term from the EMTREE controlled vocabulary
:ab,ti,kw= Term found in title and/or abstract and/or keyword
* = Truncation

[1] CADTH search filters database. Modifierat validerat sökfilter efter Embase via Ovid.

PubMed via NLM 2023-04-19

	Search terms	Items found
	Patient, problem	
#1.	Myocardial Ischemia[Mesh]	470 305
#2.	coronary artery disease*[ti/ab] OR CAD[ti/ab]	123 163
#3.	**1 OR 2**	524 722
#4.	Angina, Stable[Mesh]	1 608
#5.	Chest Pain[Mesh]	57 485
#6.	angina[ti/ab] OR chest pain[ti/ab]	91 956
#7.	**4 OR 5 OR 6**	110 776
	Intervention	
#8.	Computed tomography angiography[Mesh]	14 704
#9.	coronary computed tomograph* angiograph*[ti/ab] OR coronary CT angiograph*[ti/ab] OR CCTA[ti/ab]	18 677
#10.	**4 OR 5**	29 503
#11.	**3 AND 7 AND 10**	2 366
	Study type: Economic evaluations[2]	
#12.	economics[Mesh:noexp] OR Costs and Cost Analysis[Mesh] OR economics, nursing[Mesh] OR economics, medical[Mesh] OR economics, pharmaceutical[Mesh] OR economics, hospital[Mesh] OR economics, dental[Mesh] OR Fees and Charges[Mesh] OR budgets[Mesh] OR budget*[ti/ab] OR economic*[ti/ab] OR cost[ti/ab] OR costs[ti/ab] OR costly[ti/ab] OR costing[ti/ab] OR price[ti/ab] OR prices[ti/ab] OR pricing[ti/ab] OR pharmacoeconomic*[ti/ab] OR pharmaco economic*[ti/ab] OR expenditure[ti/ab] OR expenditures[ti/ab] OR expense[ti/ab] OR expenses[ti/ab] OR financial[ti/ab] OR finance[ti/ab] OR finances[ti/ab] OR financed[ti/ab] OR value for money[ti/ab] OR monetary value*[ti/ab] OR models, economic[Mesh] OR economic model*[ti/ab] OR markov chains[Mesh] OR markov[ti/ab] OR monte carlo method[Mesh] OR monte carlo[ti/ab] OR decision theory[Mesh] OR decision tree*[ti/ab] OR decision analy*[ti/ab] OR decision model*[ti/ab]	1447452
#13.	**11 AND 12**	227
Final	**Limits: Eng, publ. year >= 2019**	**63**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
[ti/ab] = Term found in title and/or abstract
* = Truncation

[2] CADTH search filters database. Validerat sökfilter för PubMed.

Cochrane Library via Wiley 2023-04-21

	Search terms	Items found
	Patient, problem	

#1.	MeSH descriptor: [Myocardial Ischemia] explode all trees	36 760
#2.	(coronary artery disease* OR CAD):ti,ab,kw	29 621
#3.	**1 OR 2**	51 153
#4.	MeSH descriptor: [Angina, Stable] explode all trees	420
#5.	MeSH descriptor: [Chest Pain] explode all trees	6 027
#6.	(angina OR chest pain):ti,ab,kw	20 955
#7.	**4 OR 5 OR 6**	20 955
	Intervention	
#8.	MeSH descriptor: [Computed Tomography Angiography] explode all trees	429
#9.	(coronary computed tomograph* angiograph* OR coronary CT angiograph* OR CCTA):ti,ab,kw	2 337
#10.	**8 OR 9**	2 503
#11.	**3 AND 7 AND 10**	590
	Study type: Economic evaluations[3]	
#12.	MeSH descriptor: [Economics] this term only OR MeSH descriptor: [Costs and Cost Analysis] explode all trees OR MeSH descriptor: [Economics, Nursing] explode all trees OR MeSH descriptor: [Economics, Medical] explode all trees OR MeSH descriptor: [Economics, Pharmaceutical] explode all trees OR MeSH descriptor: [Economics, Hospital] explode all trees OR MeSH descriptor: [Economics, Dental] explode all trees OR MeSH descriptor: [Fees and Charges] explode all trees OR MeSH descriptor: [Budgets] explode all trees OR MeSH descriptor: [Models, Economic] explode all trees OR MeSH descriptor: [Markov Chains] explode all trees OR MeSH descriptor: [Monte Carlo Method] explode all trees OR MeSH descriptor: [Decision Theory] explode all trees OR (economic model* OR markov OR monte carlo OR decision tree* OR decision analy* OR decision model* OR budget* OR economic* OR cost OR costs OR costly OR costing OR price OR prices OR pricing OR pharmacoeconomic* OR pharmaco economic* OR expenditure OR expenditures OR expense OR expenses OR financial OR finance OR finances OR financed OR value for money OR monetary value*):ti,ab,kw	226 152
#13.	**11 AND 12**	127
Final	**Limits: Eng, publ. year >= 2019 NOT (CT.gov OR ICTRP)**	**32**

[Mesh] = Term from the Medline controlled vocabulary, including terms found below this term in the MeSH hierarchy
:ti,ab,kw= Term found in title, abstract or keywords
* = Truncation

[3] CADTH search filters database. Modifierat validerat sökfilter för PubMed.

Totalt antal träffar: 211

Efter borttag av dubbletter: 135

Bilaga 2. Exkluderade publikationer

Referens	Anledning till exklusion
ESC 2019 PTP	
Adamson PD, Newby DE, Hill CL, Coles A, Douglas PS, Fordyce CB. Comparison of International Guidelines for Assessment of Suspected Stable Angina: Insights From the PROMISE and SCOT-HEART. *JACC Cardiovasc Imaging*. 2018;11(9):1301-1310	Fel intervention
Albuquerque F, Lopes PM, Freitas P, et al. Influence of Age on the Diagnostic Value of Coronary Artery Calcium Score for Ruling Out Obstructive Coronary Disease in Symptomatic Patients. *Am J Cardiol*. 2023;205:35-39.	Fel studiedesign
Baskaran L, Danad I, Gransar H, et al. A Comparison of the Updated Diamond-Forrester, CAD Consortium, and CONFIRM History-Based Risk Scores for Predicting Obstructive Coronary Artery Disease in Patients With Stable Chest Pain: The SCOT-HEART Coronary CTA Cohort. *JACC Cardiovasc Imaging*. 2019;12(7 Pt 2):1392-1400.	Fel intervention
Chepurnenko SA, Nasytko AD, Shavkuta GV, Kostenko VL. Results of Computed Tomographic Coronary Angiography in Comparison with the Table of Pretest Probability of Chronic Coronary Syndrome. *Kardiologiia*. 2021;61(3):30-35.	Fel utfall
Choi BG, Park JY, Rha SW, Noh YK. Pre-test probability for coronary artery disease in patients with chest pain based on machine learning techniques. *Int J Cardiol*. 2023;385:85-93.	Fel intervention
Derimay F, Finet G, Rioufol G. Coronary artery stenosis prediction does not mean coronary artery stenosis obstruction. *Eur Heart J*. 2021;42(42):4401. doi:10.1093/eurheartj/ehab332	Fel publikationstyp
Di Carli MF, Gupta A. Estimating Pre-Test Probability of Coronary Artery Disease: Battle of the Scores in an Evolving CAD Landscape. *JACC Cardiovasc Imaging*. 2019;12(7 Pt 2):1401-1404.	Fel publikationstyp
Feger S, Ibes P, Napp AE, et al. Clinical pre-test probability for obstructive coronary artery disease: insights from the European DISCHARGE pilot study. *Eur Radiol*. 2021;31(3):1471-1481.	Fel intervention
Feuchtner GM, Barbieri F, Langer C, et al. Non obstructive high-risk plaque but not calcified by coronary CTA, and the G-score predict ischemia. *J Cardiovasc Comput Tomogr*. 2019;13(6):305-314	Fel intervention
Foldyna B, J Karady, D Banerji, M T Lu, M Ferencik, T Mayrhofer, D O Bittner, J E Udelson, C B Fordyce, N Meyersohn, H Emami, P S Douglas, U Hoffmann, Cardiac MR PET CT Program, 3100 Diamond and Forrester-predicted vs. coronary CTA-observed prevalence of obstructive CAD in patients with stable chest pain: results from the PROMISE trial, *European Heart Journal*, Volume 39, Issue suppl_1, August 2018, ehy563.3100	Fel publikationstyp
Foldyna B, Udelson JE, Karády J, et al. Pretest probability for patients with suspected obstructive coronary artery disease: re-evaluating	Grunden till modellen

Diamond-Forrester for the contemporary era and clinical implications: insights from the PROMISE trial. *Eur Heart J Cardiovasc Imaging*. 2019;20(5):574-581.	
Gibbons RJ, Miller TD. Declining Accuracy of the Traditional Diamond-Forrester Estimates of Pretest Probability of Coronary Artery Disease: Time for New Methods. *JAMA Intern Med*. 2021;181(5):579-580.	Fel publikationstyp
Gomes DA, Lopes PM, Albuquerque F, et al. Coronary artery calcium score as a gatekeeper for further testing in patients with low pretest probability of obstructive coronary artery disease: A cost-effectiveness analysis. *Rev Port Cardiol*. 2023;42(7):617-624.	Fel intervention
Graca Santos L, R Ladeiras-Lopes, N Ferreira, R Faria, W Ferreira, M Carvalho, P Braga, Is coronary computed tomography angiography a good choice for elders and high probability cases?, *European Heart Journal*, Volume 41, Issue Supplement_2, November 2020, ehaa946.1375	Fel publikationstyp
Haase R, Schlattmann P, Gueret P, et al. Diagnosis of obstructive coronary artery disease using computed tomography angiography in patients with stable chest pain depending on clinical probability and in clinically important subgroups: meta-analysis of individual patient data. *BMJ*. 2019;365:l1945.	Fel intervention
Havistin R, Ivanov A, Patel P, et al. Analysis of clinical risk models vs. clinician's assessment for prediction of coronary artery disease among predominantly female population. *Coron Artery Dis*. 2022;33(3):182-188.	Fel intervention
Houssany-Pissot S, Rosencher J, Allouch P, et al. Screening coronary artery disease with computed tomography angiogram should limit normal invasive coronary angiogram, regardless of pretest probability. *Am Heart J*. 2020;223:113-119. 3	Fel studiedesign
Jensen JM, Bøtker HE, Mathiassen ON, et al. Computed tomography derived fractional flow reserve testing in stable patients with typical angina pectoris: influence on downstream rate of invasive coronary angiography. *Eur Heart J Cardiovasc Imaging*. 2018;19(4):405-414.	Fel intervention
Juarez-Orozco LE, Saraste A, Capodanno D, et al. Impact of a decreasing pre-test probability on the performance of diagnostic tests for coronary artery disease. *Eur Heart J Cardiovasc Imaging*. 2019;20(11):1198-1207.	Grund till modellen
Kelion AD. Stable Chest Pain: Are We Investigating a Symptom or Screening for Coronary Disease?. *JACC Cardiovasc Imaging*. 2022;15(1):105-107.	Fel publikationstyp
Knuuti J, Ballo H, Juarez-Orozco LE, et al. The performance of non-invasive tests to rule-in and rule-out significant coronary artery stenosis in patients with stable angina: a meta-analysis focused on post-test disease probability. *Eur Heart J*. 2018;39(35):3322-3330.	Fel studiedesign
Kolossváry M, Mayrhofer T, Ferencik M, et al. Are risk factors necessary for pretest probability assessment of coronary artery disease? A patient similarity network analysis of the PROMISE trial. *J Cardiovasc Comput Tomogr*. 2022;16(5):397-403.	Fel intervention

Lee HG, Park SD, Bae JW, et al. Machine learning approaches that use clinical, laboratory, and electrocardiogram data enhance the prediction of obstructive coronary artery disease. *Sci Rep*. 2023;13(1):12635.	Fel intervention
Lee UW, Ahn S, Shin YS, et al. Comparison of the CAD consortium and updated Diamond-Forrester scores for predicting obstructive coronary artery disease. *Am J Emerg Med*. 2021;43:200-204.	Fel setting
Liu SX, Yu SQ, Yang KJ, et al. Establishment and effectiveness evaluation of pre-test probability model of coronary heart disease combined with cardiopulmonary exercise test indexes [published correction appears in Sci Rep. 2023 Oct 30;13(1):18630]. *Sci Rep*. 2023;13(1):16411.	Fel intervention
Lopes PM, Ferreira AM, Albuquerque F, et al. Implications of three different testing strategies in the diagnostic approach to patients with stable chest pain and low pretest probability of obstructive coronary artery disease. *J Cardiovasc Comput Tomogr*. 2023;17(4):248-253.	Fel studiedesign
Malhotra S, Batal O, Douglas P, Soman P. Accurate Prediction of Myocardial Perfusion Abnormality by the European Society of Cardiology Pretest Probability Estimates of Coronary Artery Disease. *Circ Cardiovasc Imaging*. 2020;13(10):e011342.	Fel publikationstyp
Meah MN, Bing R, Newby DE. Primacy of coronary CT angiography as the gatekeeper for the cardiac catheterization laboratory. *Am Heart J*. 2020;223:120-122.	Fel publikationstyp
Mincarone P, Bodini A, Tumolo MR, et al. Discrimination capability of pretest probability of stable coronary artery disease: a systematic review and meta-analysis suggesting how to improve validation procedures. *BMJ Open*. 2021;11(7):e047677.	Fel intervention
Morgan DJ, Pineles L, Owczarzak J, et al. Accuracy of Practitioner Estimates of Probability of Diagnosis Before and After Testing. *JAMA Intern Med*. 2021;181(6):747-755. doi:10.1001/jamainternmed.2021.0269	Fel population
Neurauter E, Leschka S, Wildermuth S, et al. Use of coronary computed tomography angiography in clinical practice - single centre experience in Switzerland in light of current recommendations based on pretest probability considerations. *Swiss Med Wkly*. 2019;149:w20010. Published 2019 Jan 27.	Fel intervention
Papachristidis A, Vaughan GF, Denny SJ, et al. Comparison of NICE and ESC proposed strategies on new onset chest pain and the contemporary clinical utility of pretest probability risk score. *Open Heart*. 2020;7(1):e001081.	Fel intervention
Rasmussen LD, Fordyce CB, Nissen L, et al. The PROMISE Minimal Risk Score Improves Risk Classification of Symptomatic Patients With Suspected CAD. *JACC Cardiovasc Imaging*. 2022;15(8):1442-1454.	Fel intervention
Rasmussen LD, Nissen L, Westra J, et al. Validation and update of the minimal risk tool in patients suspected of chronic coronary syndrome. *Int J Cardiovasc Imaging*. 2021;37(2):699-706.	Fel intervention

Reeh J, Therming CB, Heitmann M, et al. Prediction of obstructive coronary artery disease and prognosis in patients with suspected stable angina. *Eur Heart J*. 2019;40(18):1426-1435. doi:10.1093/eurheartj/ehy806	Grund till modellen
Roehle R, Wieske V, Schuetz GM, et al. Applicability and accuracy of pretest probability calculations implemented in the NICE clinical guideline for decision making about imaging in patients with chest pain of recent onset [published correction appears in Eur Radiol. 2018 Jun 1;:]. *Eur Radiol*. 2018;28(9):4006-4017. doi:10.1007/s00330-018-5322-5	Fel intervention
Teressa G, Ling Y, Kalogeropoulos AP, Poon M. Abstract 14626: Outcomes After Noninvasive Cardiac Testing Compared to Clinical Evaluation Alone in Stable Chest Pain Patients - A Secondary Analysis of the Promise Randomized Clinical Trial. Circulation. 2019;140(Suppl_1):A14626-A.	Fel publikationstyp
Therming C, Galatius S, Heitmann M, et al. Low diagnostic yield of non-invasive testing in patients with suspected coronary artery disease: results from a large unselected hospital-based sample. *Eur Heart J Qual Care Clin Outcomes*. 2018;4(4):301-308.	Fel intervention
Varho V, Uusitalo V, Vaara SM, Syväranta S, Rajala H, Sinisalo J. Safe Deferral of Coronary Computed Tomography Angiography for Patients With a Low Pretest Probability of Coronary Artery Disease in 2019 European Society of Cardiology Guidelines. *J Am Heart Assoc*. 2023;12(23):e029933.	Fel studiedesign
Villines TC, Weber LA. Trust us! Time to move on from pretest probability scores for stable chest pain. *Heart*. 2022;108(11):822-823. Published 2022 May 12. doi:10.1136/heartjnl-2021-320741	Fel publikationstyp
Wang C, Zhang X, Liu C, Zhang C, Sun G, Zhou J. Coronary Artery Calcium Score Improves Risk Assessment of Symptomatic Patients in Low-Risk Group Based on Current Guidelines. *Rev. Cardiovasc. Med.* **2023**, 24(6), 162	Fel studiedesign
Wardziak Ł, Kruk M, Pleban W, et al. Coronary CTA enhanced with CTA based FFR analysis provides higher diagnostic value than invasive coronary angiography in patients with intermediate coronary stenosis. *J Cardiovasc Comput Tomogr*. 2019;13(1):62-67.	Fel studiedesign
Weir-McCall JR, Williams MC, Wood A. One step closer to quantifying 'clinical likelihood' in pre-test probability. *Eur Heart J Qual Care Clin Outcomes*. 2022;8(6):597-599.	Fel publikationstyp
Winther S, Murphy T, Schmidt SE, et al. Performance of the American Heart Association/American College of Cardiology Guideline-Recommended Pretest Probability Model for the Diagnosis of Obstructive Coronary Artery Disease. *J Am Heart Assoc*. 2022;11(24):e027260.	Fel intervention
Winther S, Nissen L, Westra J, et al. Pre-test probability prediction in patients with a low to intermediate probability of coronary artery disease: a prospective study with a fractional flow reserve endpoint. *Eur Heart J Cardiovasc Imaging*. 2019;20(11):1208-1218.	Fel intervention

Winther S, Schmidt SE, Knuuti J, Bøttcher M. Comparison of Pretest Probability Models of Obstructive Coronary Artery Disease. *JACC Cardiovasc Imaging*. 2022;15(1):173-175.	Fel publikationstyp
Winther S, Schmidt SE, Knuuti J, Bøttcher M. Selecting the right cohorts and endpoints for the validation of pre-test probability models for obstructive coronary artery disease. *Eur Heart J*. 2021;42(42):4402-4403.	Fel publikationstyp
Witvliet MP, Arkenbout EK, Kamphuisen PW. Using Coronary Artery Calcium Score as Diagnostic Tool in Symptomatic Chronic Coronary Syndrome Patients in a Real-Life Setting. *Vasc Health Risk Manag*. 2023;19:571-582.	Fel studiedesign
Zhang Y, Liu Y, Zhang H, Zhou J. Impact of sex-specific differences in calculating the pretest probability of obstructive coronary artery disease in symptomatic patients: a coronary computed tomographic angiography study. *Coron Artery Dis*. 2019;30(2):124-130.	Fel intervention
Zhou T, Wang X, Wu T, et al. Clinical application of computed tomography angiography and fractional flow reserve computed tomography in patients with coronary artery disease: A meta-analysis based on pre- and post-test probability. *Eur J Radiol*. 2021;139:109712.	Fel studiedesign
Effekter av DT kranskärl	
Adamson PD, Williams MC, Dweck MR, et al. Guiding Therapy by Coronary CT Angiography Improves Outcomes in Patients with Stable Chest Pain. J Am Coll Cardiol. 2019;74(16):2058-2070.	Fel kontroll
Al-Abdouh A, Mhanna M, Jabri A, et al. Meta-Analysis of Coronary Computed Tomography Versus Invasive Coronary Angiography in Stable Chest Pain. Am J Cardiol. 2022;183:153-154.	Fel kontroll
Chiong J, Ramkumar PG, Weir NW et al. Evaluating Radiation Exposure in Patients with Stable Chest Pain in the SCOT-HEART Trial. Radiology. 2023 Aug;308(2):e221963.	Fel utfall
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Bilaga 3. Inkluderade studier

Effektstudier

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB

CAPP
McKavanagh 2015
UK
[1]
	RCT	**Setting**: Rapid Access Chest Pain Clinics (RACPC)
		
		Inclusion: symptoms of stable chest pain defined as troponin negative without symptoms suggestive of unstable angina.
		
		Exclusion: unstable angina or contraindications to both EST and cardiac CTA.
		
		N = 500
		Age (mean ± SD):
		EST 58.9 ± 10.2
		CCTA 57.8 ± 10.0
		Females, n (%)
		EST 114 (46.5)
		CCTA 105 (43.2)
		Cholesterol mmol/L, (mean ± SD):
		EST 5.4 ± 1.1
		CCTA 5.3 ± 1.1
		Hypertension, n (%)
		EST 73 (29.8)
		CCTA 77 (31.7)
			Exercise stress electrocardiography test (EST)
			
			Cardiac computerized tomography angiography (CCTA)
				Primary: change in score within the Seattle Angina Questionnaires (SAQ)
				
				Secondary: the number of patient hospitalizations, MACEs, further investigations needed, and final CAD diagnoses
				
				Follow-up: 1 year
					Risk ratio, RR (95% CI) and risk difference, RD (95% CI):
					• All cause death:
					  ○ RR 1.01 (0.06–16.03)
					  ○ RD 0.00 (-0.01–0.01)
					• Nonfatal MI:
					  ○ RR 0.50 (0.05–5.48)
					  ○ RD 0.00 (-0.02–0.01)
					• All adverse events:
					  ○ RR 0.50 (0.13–1.98)
					  ○ RD 0.01 (-0.04–0.01)
						Some concerns

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		Diabetes, n (%) EST 12 (4.9) CCTA 14 (5.8) **Smoking**, n (%) EST 47 (19.2) CCTA 46 (18.9)				
PROMISE Douglas 2015 USA [2]	RCT	**Setting**: primary care, radiology, cardiology, and hospital-based practices. **Inclusion**: symptomatic outpatients with suspected CAD. Age >54 years (men) or >64 (women) or an age of 45 to 54 years (in men) or 50 to 64 years (in women) with at least one cardiac risk factor. **Exclusion**: unstable hemodynamic status or arrhythmias that required urgent evaluation for suspected acute coronary syndrome, a history of CAD or evaluation for CAD within the previous 12 months, or clinically significant congenital, valvular, or cardiomyopathic heart disease. **N** = 10 003 **Age** (mean ± SD): 60.8 ± 8.3 **Females**: 52.7% **Dyslipidemia:** 67.7% **Hypertension:** 65.0% **Diabetes**: 21.4% **Smoking** (past/present): 51.1%	**Functional testing** including exercise electrocardiography (10%), exercise or pharmacologic nuclear stress testing, and stress echocardiography. **Anatomical testing** with ≥64-slice multidetector coronary computed tomographic angiography (CCTA).	Time to first event using the composite of the following major cardiovascular events: • Death • Myocardial infarction • Major complications from cardiovascular procedures including testing • Unstable angina hospitalization **Follow-up,** median (IQR): 25 (18–34) months	**Exercise electrocardiography vs. CCTA** Composite of all cause death, nonfatal MI, hospitalization for unstable angina, or major procedural complications): HR 1.80 (0.66–4.86) Risk ratio, RR (95% CI) and risk difference, RD (95% CI): • All cause death: o RR 1.69 (0.41–7.05) o RD 0.00 (-0.01–0.02) • Nonfatal MI: o RR 1.02 (0.14–7.19) o RD 0.00 (-0.01–0.01) • All adverse events: o RR 1.86 (0.69–5.00) o RD 0.01 (-0.01–0.03)	Low

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
CRESCENT Lubbers 2016 The Netherlands [3]	RCT	**Setting**: Four hospitals, after referral. **Inclusion**: Patients aged 18 or older with stable chest pain or angina equivalent symptoms potentially caused by obstructive CAD. Renal impairment, contrast allergy, atrial fibrillation, or other test-specific contraindications did not preclude study participation. **Exclusion**: known CAD or invasive angiography or stress test performed within the last year. **N** = 350 **Age** (mean ± SD): 55±8 **Females**: 55% **Dyslipidemia**: EST 61% CCTA 54% **Hypertension**: EST 52% CCTA 52% **Diabetes:** EST 16% CCTA 17% **Smoking**: N/A	Exercise stress electrocardiography test (**EST**) Coronary computed tomography angiography (**CCTA**)	**Primary**: clinical effectiveness, defined as the absence of chest pain complaints after 1 year. **Secondary:** diagnostic yield, defined as the proportion of patients undergoing revascularization after invasive angiography Survival analysis was based on a composite endpoint of all-cause mortality, non-fatal myocardial infarction, major stroke, unstable angina pectoris with objective ischaemia and/or requiring revascularization, unplanned cardiac evaluations, and late coronary revascularization procedures. **Follow-up:** 1 year	Risk ratio, RR (95% CI) and risk difference, RD (95% CI) • All cause death: o RR 0.45 (0.06–3.17) o RD -0.01 (-0.04–0.02) • Nonfatal MI: o RR 0.45 (0.03–7.16) o RD -0.01 (-0.02–0.01) • All adverse events: o RR 0.36 (0.10–1.32) o RD -0.03 (-0.07–0.01)	Some concerns
PRECISE Douglas 2023 USA [4]	RCT	**Setting**: Physician offices, clinics, hospital outpatient departments, and diagnostic testing facilities	**Precision strategy (PS)** further testing was deferred in participants with a PROMISE minimal risk score (PMRS) >0.46	Composite of invasive coronary angiography without obstructive CAD (clinical efficiency endpoint) and death or	Adjusted hazard ratio, HR (95%, CI) • Primary composite end point: 0.29 (0.20–0.41)	Low

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		Inclusion: Patients without known CAD or prior testing, who had stable symptoms of suspected CAD recommended for nonemergent testing. **Exclusion**: Patients with unstable symptoms, previous CAD testing with the past year, or cCTA contraindications. **N** = 2103 **Age** (mean ± SD): 58.4 ± 11.5 **Females**: 49.8% **Dyslipidemia:** PS: 63.2% UT: 65.1% **Hypertension:** PS: 60.7% UT: 57.9% **Diabetes**: PS: 16.7% UT: 18.8% **Smoking** (past/present): PS: 51.5% UT: 53.0%	(i.e., low risk), while a PMRS ≤0.46 led to cCTA with noninvasive FFR-CT for 30-90% stenoses. **Usual testing (UT)** Testing in the UT group was at the treating clinician's discretion	nonfatal MI (safety endpoint) **Follow-up,** median (IQR): 11.8 (11.3-12.3) months	• Death from any cause: 0.74 (0.24–2.35) • Nonfatal myocardial infarction: 0.74 (0.24–2.35) • Invasive cardiac catheterization without obstructive coronary disease: 0.19 (0.12–0.30)	
Mark 2016 (PROMISE) USA [5]	RCT	**Setting**: primary care, radiology, cardiology, and hospital-based practices. **Inclusion**: symptomatic outpatients with suspected CAD. Age >54 years (men) or >64 (women) or an age of 45 to 54 years (in men) or 50	**Functional testing** including exercise electrocardiography (ECG), exercise or pharmacologic nuclear stress testing, and stress echocardiography.	Primary QoL measures: Duke Activity Status Index (DASI) and the Seattle Angina Questionnaire (SAQ) **Follow-up,** median (IQR): 25 (18–34) months	Mean difference (anatomic – functional) MD (95% CI): • DASI 0.1 (–0.9 to 1.1) SAQ • QOL scale –0.2 (–1.3 to 0.9)	Low

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		to 64 years (in women) with at least one cardiac risk factor. **Exclusion**: unstable hemodynamic status or arrhythmias that required urgent evaluation for suspected acute coronary syndrome, a history of CAD or evaluation for CAD within the previous 12 months, or clinically significant congenital, valvular, or cardiomyopathic heart disease. **N** = 5985 **Age** (mean): 60.0 **Females**: 52.0% **Dyslipidemia:** 67.9% **Hypertension:** 65.9% **Diabetes**: 21.2% **Smoking** (past/present): 51.5%	**Anatomical testing** with ≥64-slice multidetector coronary computed tomographic angiography (CCTA).			
Jørgensen 2017 Denmark [6]	Observational	**Setting**: outpatient clinical setting **Data source**: National Patient Registry **Inclusion**: stable patients undergoing initial noninvasive testing for CAD, with comprehensive follow-up. **Exclusion**: patients undergoing initial testing during hospitalization due to suspected unstable angina or myocardial infarction (MI),	**Functional testing** included exercise electrocardiography (79%) and nuclear stress testing. Nuclear stress testing was performed during physical exercise (24%) or pharmacological stress (76%), using single-photon emission computed tomography	• The long-term primary endpoint was all-cause mortality, defined by vital status in the National Population Registry. • The secondary endpoints were hospital-verified fatal and nonfatal MI during admission or emergency room visit, defined as a primary diagnosis of acute MI	Exercise electrocardiography vs. CCTA: Hazard ratio, HR (95% CI) • All-cause mortality 1.03 (0.93 to 1.14) • MI 0.72 (0.61 to 0.84)	Serious

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		patients with a prior diagnosis of either CAD or heart failure, or any history of invasive coronary angiography, percutaneous coronary intervention (PCI), or coronary artery bypass grafting (CABG). Patients <30 years of age, patients with noncardiac surgery within 30 days, tests performed during hospital admission and patients who had >1 noninvasive cardiac test on the same day. **N** = 86 705 **Age** (mean ± SD): Functional 57.4 ±12.8 CCTA 57.4 ± 10.9 **Females**: Functional 51.2% CCTA 55% **Dyslipidemia:** N/A **Hypertension:** N/A **Diabetes with complications**: Functional 3.5% CCTA 2.7% **Smoking**: N/A	Coronary computed tomography angiography (**CCTA**)	coded as I21 in the International Classification of Disease-Version 10, as well as the combined endpoint of all-cause mortality and MI. **Follow up**: median (IQR) 3.6 years (2.0 to 5.3 years)		
Jo 2023 Korea [7]	Observational	**Setting**: outpatient clinical setting. **Data source**: Nationwide claims database of the National Health Insurance Service in South Korea.	Noninvasive functional tests (TMT, SPECT)	The primary end point was a composite of cardiac death and MI during the follow-up period. The secondary	TMT vs. CCTA: Hazard ratio, HR_{adj} (95% CI) • Primary composite end point 0.84 (0.65 to 1.08)	Serious

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		Inclusion: patients who underwent 1 of the noninvasive diagnostic strategies including CCTA, treadmill test (TMT) and SPECT under clinical diagnoses of angina pectoris, other symptoms and signs involving the circulatory and respiratory systems, pain in the throat and chest, atherosclerosis, and abnormalities of breathing as a primary diagnosis. **Exclusion**: patients who underwent revascularization, including percutaneous coronary intervention or coronary artery bypass grafting or had MI at any time before the index test. Patients who died during the test month were excluded from the study. **N** = CCTA 7864; TMT 17 312 **Age** (mean ± SD): CCTA 57.8±14.5 TMT 51.8±13.9 **Females** (%): CCTA 47.5 TMT 46.6 **Dyslipidemia** (%): CCTA 55.9 TMT 53.0 **Hypertension** (%): CCTA 55.1	Coronary computed tomography angiography (CCTA)	end point was the composite of the primary end point and revascularization.	• Cardiac death 0.64 (0.44 to 0.92) • MI 1.04 (0.74 to 1.48)	

Study, author, year, country	Study design	Participants	Interventions	Outcomes	Results	RoB
		TMT 47.8 **Diabetes** (%): CCTA 42.6 TMT 36.4 **Smoking** (%): N/A				

ESC-PTP studier

Author, year, country	Study design	Study setting	Participant characteristics	Outcome	Model performance	
					Calibration	Discrimination
Bing 2020 UK [8]	RCT (SCOT-HEART)	Cardiology clinics	N=3 755 **Age** (mean (range)): 57 (50–64) **Females**: 45.7% **Hyperlipidemia**: 55.3% **Hypertension**: 32.5% **Diabetes**: 9.9% **Smoking**: 48.1% Typical chest pain: 33.6% Atypical chest pain: 23.7% Non-anginal chest pain: 42.8%	Obstructive CAD defined as coronary artery area stenosis >70% in a major epicardial vessel or >50% in the left main stem on CCTA.	N/A	N/A
Bjerking 2022 **Winther 2021** Denmark [9, 10]	Existing registry	Tertiary	N=42 328 **Age** (mean (SD)): 58 (13.8) **Females**: 54% **Hyperlipidemia**: 35.4% **Hypertension**: 46.7% **Diabetes**: 11.9% **Smoking**: 22.1% Typical chest pain: 9.8% Atypical chest pain: 18.8% Non-anginal chest pain: 58.6% Dyspnoea: 12.9% Obstructive CAD prevalence 8.8%	ICA diagnosed obstructive CAD, defined as FFR < 0.80 in coronary arteries with diameters >2 mm if ICA-FFR was performed, or >50% stenosis verified at ICA if ICA-FFR was not performed.	Calibration-in-the-large -0.51 (-0.54; -0.47) Calibration slope 1.13 (1.08;1.17)	AUC 0.76 (0.75 to 0.77)

Eurlings 2022 Netherlands [11]	Retrospective cohort	Secondary outpatient clinic care	N=696 **Age** (mean (SD)): 65.6 (12.6) **Females**: 51% **LDL-cholesterol**, mmol/L (SD):3.4±1.2 **Systolic BP** (mean ± SD): 143±24 **Diastolic BP** (mean ± SD): 85±13 **Diabetes**: 11% **Smoking**: 22% Typical chest pain: 31% Atypical chest pain: 38% Non-anginal chest pain: 31% Prevalence of CAD: 16.2%	CAD defined by a coronary stenosis >50% in at least one coronary vessel in ICA or CT angiography or having a coronary event within 6 months.	N/A	AUC 0.80 (0.76 to 0.85)
Fordyce 2022 USA [12]	RCT (PROMISE)	Both community practices and academic medical centers.	N=4533	Obstructive CAD on CCTA, defined as ≥70% stenosis of major epicardial artery or ≥50% left main artery)	N/A	Adjusted AUC 0.66 (0.64 to 0.68)
Fyyaz 2021 UK [13]	Retrospective cohort	Cardiology clinics	N=612 **Age** (mean ± SD): 56 (11) **Females**: 50% **Hyperlipidemia** (%): N/A	CAD on CCTA. The severity of coronary stenoses was classified, based on visual assessment as; severe>70% or	N/A	N/A

			Hypertension (%): N/A **Diabetes** (%): N/A **Smoking** (%): N/A Typical chest pain: 13% Atypical chest pain: 82% Non-anginal chest pain:5%	>50% in the left main stem (LMS), Moderate if >50–70% stenosis and mild if 30–50% stenosis		
Lopes 2022 Portugal [14]	Prospective cohort	Tertiary hospital	N=320 **Age** (median (IQR)): 63 (53-70) **Females**: 58.7% **Hyperlipidemia**: 55.9% **Hypertension**: 68.8% **Diabetes**: 17.2% **Smoking**: 33.4% Typical chest pain: 14.0% Atypical chest pain: 47.8% Non-anginal chest pain: 38.1% observed prevalence of obstructive CAD: 16.3%	Obstructive CAD defined as any ≥50% luminal stenosis on CCTA. Whenever ICA was performed, patients were reclassified accordingly using the same ≥50% luminal stenosis threshold.	Relative underestimation of 6.5% (p for miscalibration 0.712)	AUC 0.74 (0.66-0.81)
Meng 2023 China [15]	Prospective cohort	Tertiary hospital	N=5 289 **Age** (mean ± SD): 56.1 (10.3) **Females**: 51% **Hyperlipidemia**: 34% **Hypertension**: 41% **Diabetes**: 19% **Smoking**: 29% Typical chest pain: 17% Atypical chest pain: 45%	Obstructive CAD was defined as present if a patient had at least one lesion with ≥ 50% diameter stenosis or any unassessable segments because of severe calcification on CCTA	H-L χ^2 = 95.46, p < 0.0001	AUC 0.74 (0.72-0.75)

			Non-anginal chest pain: 38% Obstructive CAD: 19%			
Rasmussen 2023 Denmark [16]	RCT (SCOT-HEART)	Cardiology clinics	N=1585 **Age** (mean (SD)): 57.2±9.5 **Females**: 45.8% **Hyperlipidemia**: 40.7% **Hypertension**: 33.6% **Diabetes**: 9.5% **Smoking**: 51.3% Typical chest pain: 35.0% Atypical chest pain: 24.4% Non-anginal chest pain: 40.6% Prevalence of CAD:	Obstructive CAD was defined as >70% diameter stenosis in a major epicardial vessel on CTA.	Calibration in the large 0.54, slope 1.09	AUC 0.78 (0.76 to 0.81)
Rijlaarsdam-Hermsen 2021 Netherlands [17]	Existing registry		N=642 **Age** (mean ± SD): 63 (11) **Females**: 50% **Hyperlipidemia**: 28% **Hypertension**: 47% **Diabetes**: 18% **Smoking**: 17% Typical chest pain: 19% Atypical chest pain: 32% Non-anginal chest pain: 49%	Obstructive CAD defined as ≥50% stenosis in at least one vessel on invasive coronary angiography or - if invasive coronary angiography was not performed - the occurrence of major adverse cardiovascular events comprising all-cause mortality, nonfatal myocardial infarction, and coronary revascularization within 12 months following CMR.	N/A	AUC 0.64 (0.62 to 0.65)

Zhao 2022 China [18]	Prospective cohort	Tertiary hospital	N=602 **Age** (mean ± SD): 62.3 (11.6) **Females**: 45% **Hyperlipidemia**: 52% **Hypertension**: 68% **Diabetes**: 100% **Smoking**: 47% Typical chest pain: 13% Atypical chest pain: 40% Non-anginal chest pain: 47% Obstructive CAD: 45%	Obstructive CAD defined as present if a patient had at least one lesion with ≥50% diameter stenosis or any unassessable segments at CCTA.	H-L χ^2 = 92.47	AUC 0.78 (0.75;0.82)
Zhou 2022 China [19]	Prospective cohort	Tertiary hospital	N=4 207 **Age** (mean ± SD): 57.4 (9.5) **Females**: 47% **Hyperlipidemia**: 37% **Hypertension**: 43% **Diabetes**: 14% **Smoking**: 33% Typical chest pain: 23% Atypical chest pain: 40% Non-anginal chest pain: 37 % Obstructive CAD: 28%	Obstructive CAD. Each coronary segment with a >2mm diameter was analyzed for the presence of coronary diameter stenosis. The maximal degree of coronary diameter stenosis was defined as no CAD (0%), nonobstructive CAD (1-49%) and obstructive CAD (≥50%).		AUC 0.70 (0.69-0.72)

Bilaga 4 – Känslighetsanalys apparatur och sköterskor

Tabell 4.1 visar 10 olika scenarion och känslighetsanalyser över antal apparatur som behövs för att utföra undersökningarna vid variation på 8, 12 och 16 undersökningar per dag.

Tabell 4.1. Känslighetsanalys apparatur

Olika utfall	Antal apparatur som krävs vid 8 DT/dag/team/apparatur	Antal apparatur som krävs vid 12 DT/dag/team/apparatur	Antal apparatur som krävs vid 16 DT/dag/team/apparatur
1	0	0	0
2	3	2	2
3 hög	2	1	1
3 låg	1	1	1
4 hög	5	4	3
4 låg	4	3	2
5	7	4	3
6 hög	4	3	2
6 låg	2	1	1
7 hög	9	6	4
7 låg	8	5	4
8 hög	8	5	4
8 låg	5	4	3
9 hög	7	4	3
9 låg	3	2	2
10	10	7	5

Tabell 4.2 visar 10 olika scenarion och känslighetsanalyser över kostnaden för att köpa in den apparatur som behövs för att utföra undersökningarna vid variation på 8, 12 och 16 undersökningar per dag samt om kostnaden för inköp av apparatur varierar mellan 10, 17,5 och 25 miljoner per apparatur.

Tabell 4.2: Känslighetsanalys apparaturkostnad

Olika utfall	**8 DT/dag (10 MSEK)**	**12 DT/dag (10 MSEK)**	**16 DT/dag (10 MSEK)**	**8 DT/dag (17,5 MSEK)**	**12 DT/dag (17,5 MSEK)**	**16 DT/dag (17,5 MSEK)**	**8 DT/dag (25 MSEK)**	**12 DT/dag (25 MSEK)**	**16 DT/dag (25 MSEK)**
1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2	32,6	21,7	16,3	57,0	38,0	28,5	81,4	54,3	40,7
3 hög	21,8	14,6	10,9	38,2	25,5	19,1	54,5	36,4	27,3
3 låg	10,8	7,2	5,4	18,8	12,5	9,4	26,9	17,9	13,4
4 hög	54,4	36,3	27,2	95,2	63,4	47,6	136,0	90,6	68,0
4 låg	43,3	28,9	21,7	75,8	50,5	37,9	108,3	72,2	54,1
5	66,1	44,1	33,1	115,7	77,1	57,9	165,3	110,2	82,6
6 hög	44,3	29,5	22,2	77,5	51,7	38,8	110,7	73,8	55,4
6 låg	21,8	14,6	10,9	38,2	25,5	19,1	54,5	36,4	27,3
7 hög	87,9	58,6	44,0	153,9	102,6	76,9	219,8	146,6	109,9
7 låg	76,9	51,2	38,4	134,5	89,7	67,3	192,2	128,1	96,1
8 hög	76,9	51,2	38,4	134,5	89,7	67,3	192,2	128,1	96,1
8 låg	54,4	36,3	27,2	95,2	63,4	47,6	136,0	90,6	68,0
9 hög	66,1	44,1	33,1	115,7	77,1	57,9	165,3	110,2	82,6
9 låg	32,6	21,7	16,3	57,0	38,0	28,5	81,4	54,3	40,7
10	98,7	65,8	49,3	172,7	115,1	86,3	246,7	164,5	123,3

Tabell 4.3 visar resultaten från känslighetsanalys på sjuksköterskor vid 8, 12 respektive 16 undersökningar per dag samt 2 respektive 3 sköterskor som krävs per undersökning.

Antal sköterskor vid 2/team (8 DT/dag)	Antal sköteskor vid 2/team (12 DT/dag)	Antal sköterskor som krävs vid 2/team (16 DT/dag)	Antal sköterskor vid 3/team (8 DT/dag)	Antal sköteskor vid 3/team (12 DT/dag)	Antal sköteskor vid 3/team (16 DT/dag)
0	0	0	0	0	0
7	4	3	10	7	5
4	3	2	7	4	3
2	1	1	3	2	2
11	7	5	16	11	8
9	6	4	13	9	6
13	9	7	20	13	10
9	6	4	13	9	7
4	3	2	7	4	3
18	12	9	26	18	13
15	10	8	23	15	12
15	10	8	23	15	12
11	7	5	16	11	8
13	9	7	20	13	10
7	4	3	10	7	5
20	13	10	30	20	15

Tabell 4.3. Känslighetsanalys antal sjuksköterskor för respektive utfall

Olika utfall	**Antal sköterskor vid 2/team (8 DT/dag)**	**Antal sköterskor vid 2/team (12 DT/dag)**	**Antal sköterskor vid 2/team (16 DT/dag)**	**Antal sköterskor vid 3/team (8 DT/dag)**	**Antal sköterskor vid 3/team (12 DT/dag)**	**Antal sköterskor vid 3/team (16 DT/dag)**
1	0	0	0	0	0	0
2	7	4	3	10	7	5
3 hög	4	3	2	7	4	3
3 låg	2	1	1	3	2	2
4 hög	11	7	5	16	11	8
4 låg	9	6	4	13	9	6
5	13	9	7	20	13	10
6 hög	9	6	4	13	9	7
6 låg	4	3	2	7	4	3
7 hög	18	12	9	26	18	13
7 låg	15	10	8	23	15	12
8 hög	15	10	8	23	15	12

8 låg	11	7	5	16	11	8
9 hög	13	9	7	20	13	10
9 låg	7	4	3	10	7	5
10	20	13	10	30	20	15

Tabell 4.4. Känslighetsanalys av antal kardiologer/radiologer som krävs för bedömning av undersökningssvaret från DT Kranskärl. Räknat på 252 arbetsdagar på ett år och 30 minuter per bedömning.

Alternativ	Antal DT	Specialist remitterar majoritet till DT (0,67)	Specialist remitterar minoritet till DT (0,33)	Totalt antal DT Hög	Totalt antal DT Låg	Antal kardiologer /radiologer
1: 100% arbetsprov	0	0	0	0	0	0,0
2: 67 % arbetsprov, 33 % CT	6565	0	0	6565	6565	1,6
3: 67% arbetsprov, 33 % till specialist	0	4398	2166	4398	2166	0,5
4: 33% till arbetsprov. 33% till CT, 33% till specialist	6565	4398	2166	10 963	8731	2,2
5: 33 % arbetsprov, 67% CT	13 328	0	0	13 328	13 328	3,3
6: 33% arbetsprov, 67% specialist	0	8930	4398	8930	4398	1,1
7: 67% CT, 33% specialist	13 328	4398	2166	17 726	15 494	3,8
8: 67% specialist, 33% CT	6565	8930	4398	15 495	10 963	2,7
9: 100% specialist	0	13 328	6565	13 328	6565	1,6
10: 100% CT	19 893	0	0	19 893	19 893	4,9

Bilaga 5 – Känslighetsanalys undersökningspris

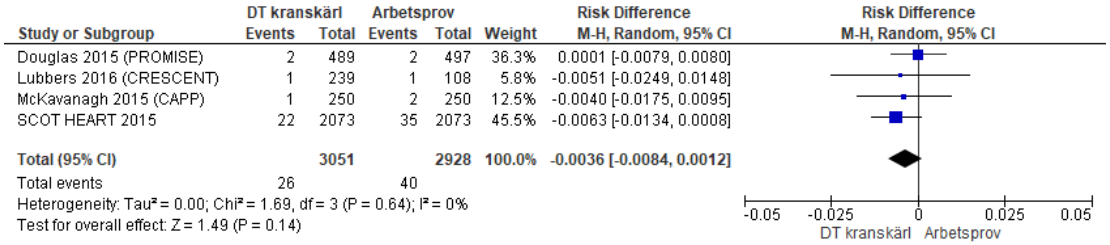
Resultaten från känslighetsanalys över undersökningspris ses i tabell 5.1. Reducering av utgångspriset 11 065 SEK med 10–90% procent för alla olika scenarion (1–10) samt om en majoritet (hög) eller minoritet (låg) andel blir remitterade till DT kranskärl efter besök hos specialist. Tabellen visar nettokostnaden för undersökningar över ett år för respektive scenario. Redovisas i miljoner kronor (MSEK).

Tabell 5.1. Känslighetsanalys undersökningspris

Olika utfall	**Utgångspris**		**90%**		**80%**		**70%**		**60%**		**50%**		**40%**		**30%**		**20%**		**10%**	
Undersökningspris DT	1106		9958		8852		7745		6639		5532		4426		3320		2213		1107	
Andel remitteras till DT från specialist	Hög	Låg	Hög	Låg	Hög	Låg	Hög	Låg	Hög	låg	Hög	Låg	Hög	Låg	Hög	Låg	Hög	Låg	Hög	Låg
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	64,7	64,7	57,4	57,4	50,2	50,2	42,9	42,9	35,6	35,6	28,4	28,4	21,1	21,1	13,8	13,8	6,6	6,6	-0,7	-0,7
3	59,3	34,6	54,5	32,2	49,6	29,8	44,7	27,4	39,9	25,1	35,0	22,7	30,1	20,3	25,3	17,9	20,4	15,5	15,5	13,1
4	123,8	99,1	111,7	89,4	99,5	79,8	87,4	70,1	75,3	60,4	63,1	50,8	51,0	41,1	38,9	31,5	26,7	21,8	14,6	12,1
5	131,3	131,4	116,6	116,6	101,9	101,9	87,1	87,1	72,6	72,6	57,6	57,6	42,9	42,9	28,1	28,1	13,4	13,4	-1,4	-1,4
6	120,5	70,3	110,6	65,5	100,7	60,6	90,8	55,7	80,9	55,9	71,1	46,0	61,2	41,1	51,3	36,3	41,4	31,4	31,5	26,5
7	190,7	166,0	171,1	148,8	151,5	131,7	131,8	114,6	112,2	97,4	92,6	80,3	73,0	63,1	53,4	46,0	33,8	28,8	14,2	11,7
8	185,2	135,0	168,0	122,9	150,9	110,8	133,7	98,6	116,6	86,5	99,4	74,4	82,3	62,2	65,1	50,1	48,0	38,0	30,9	25,8
9	179,8	105,0	165,1	97,7	150,3	90,4	135,6	83,2	120,8	75,9	106,1	68,6	91,3	61,4	76,6	54,1	61,8	46,9	47,1	39,6
10	196,0	196,0	174,0	174,0	152,0	152,0	130,0	130,0	108,0	108,0	86,0	86,0	64,0	64,0	42,0	42,0	20,0	20,0	-2,1	-2,1

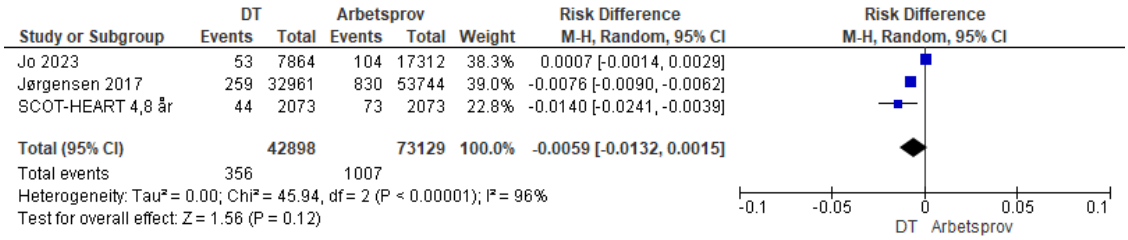
Bilaga 6 – SCOT-HEART

Korttidsuppföljning:



Figur 6.1. Metaanalys av antalet hjärtinfarkt med resultat från SCOT HEART (1,7 års uppföljning).

Långtidsuppföljning:



Figur 6.2. Metaanalys av antalet hjärtinfarkt med resultat från SCOT HEART (4,8 års uppföljning).

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