Additional file 5: characteristics of included studies and the influential factors on prioritization of elective patients

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| --- | --- | --- | --- | --- | --- |
| **Clinical factors** | **Non-clinical factors** | **Study method** | **Country** | **Authors(year)** | **No** |
| * Pain * Rate of progress of disease * Ability to influence outcome * Degree of distress | * Disability- * Waiting time * Affecting outcome by delay * Age | Literature review | Canada | Samira Abbasgholizadeh Rahimi1  Et al; 2014(1) | 1 |
| * Gravity of illness * Pain * Probability of recovery | * Age * Restraints on daily activity * Social criteria * Ability to work | Qualitative study:  Literature review | Spain | Cristian tebe et al; 2014(2) | 2 |
| * Clinical manifestations complications- * Varicose vein size | * Quality of life * Working conditions | Quantitative study:  Questionnaire | Spain | Serge bellmunt  Montoya; 2014(3) | 3 |
| * Risk of complications during the waiting period. * Clinical effectiveness of the intervention | * Waiting time * Utilization of healthcare resources and services during the waiting period. * Quality of life | Quantitative study | Spain | Paula  Adam et al; 2010(4) | 4 |
| * Pain * Pain at rest | * Ability to work * Financial difficulties enjoyment of life- | Quantitative study | Australia | Julia Witt and  Et al; 2009(5) | 5 |
| * Pain * Disease severity | * Difficulty in doing activities of daily living * limitations on ability to work * being a caregiver * recovery probability | Mixed study | Spain | Sampietro-Colom L and Et al; 2008(6) | 6 |
| * Pain * BMI * Stiffness joint | * Sex * Age * Functional limitation * Waiting time | Mixed:  Literature review and quantitative study | Spain | Antonio Escobar; et al 2008(7) | 7 |
| * Rate of progress of disease * Severe pain- | * Age * Disability * Dysfunction | Quantitative study | Italy | A. Testi  Et al; 2008(8) | 8 |
| * Physical symptoms * Psychological distress | * Social limitations * Impairments in work | Qualitative study | Netherlands | Jurian  P, et al; 2007(9) | 9 |
| * Moderate pain on motion * Mild pain at rest | * Able to walk 1–5 blocks without significant pain * Limitations on ability * Ability to fulfil their role and independence in society | Qualitative study:  Expert panel | Canada | Carolyn et al; 2005(10) | 10 |
| - | * Age * Waiting time | Quantitative study:  Modeling | England | T Perris and AW Labib; 2004(11) | 11 |
| * Pain on motion * Pain at rest | * Ability to walk * Other functional limitations * Potential for progression of disease * Ability to work * Give care to dependent, live independently - | Qualitative study:  Expert panel | Canada | Gordon Arnett  Et al; 2003(12) | 12 |
| * Pain on motion- * Pain at rest | * Ability to walk * Functional limitation independently live | Qualitative study:  Expert panel | Canada | David Hadom; 2003(13) | 13 |
| * Pain * Age * Clinical evidence compensation pending * Deterioration of disease | * Anticipated benefit * Dependence on others * Disability * Ability to pay * Evidence of cost-effectiveness | Mixed method: Literature review and qualitative study  (questionnaire) | England | Rhiannon Tudor Edwards; 2003(14) | 14 |
| - | * Waiting time * Social factor * Disability factor | Literature review | England | Penelope M. Mullen; 2002(15) | 15 |
| * Best corrected visual acuity   . Glare  ocular -comorbidity   * extent of impairment in visual function | * Other substantial disability * Ability to work | Mixed method:  Literature review and  Quantitative study (questionnaire) | Canada | Kenneth.g  Romanchuk, et al; 2001(16) | 16 |
| * Internalized symptoms * Acute psychosis * Externalized/disruptive behavior | * Danger to self * Danger to others * Age * Social/friendships/community functioning * Family history | Literature review and expert panel | Canada | Derryck H. Smith  Et al; 2002(17) | 17 |
| * Illness severity * Risk of premature death. | * Limitations on activity | Literature review | Canada | Hadorn et al; 2000(18) | 18 |
| - | * Age * Status work * Waiting time | Literature review | Canada | Steven Lewis  Et al; 2000(19) | 19 |
| * Severity of disease | * Age * Waiting time | Quantitative study  Modeling | England | Julie Ratcliffe et al; 2000(20) | 20 |
| * Severe symptoms * Obesity | * Age * Sex * Smokers * Employed * Dependents | Quantitative study:  Modeling | New Zealand | D P de Bono  Et al; 1998(21) | 21 |
| * Prioritizing surgeon | * Age * Sex * Nationality | Quantitative study:  Modeling | New Zealand | Rachel J. Hunter  Et al; 2018(22) | 22 |
| * Ability to work rate of progression future complications- | * Life independently limitations in doing -activities of daily living * Waiting time * Look after others | Literature review and Delphi technique | Spain | Mait solan Domènech et al; 2013(23) | 23 |
| * Clinical disorders | * Difficulty in doing activities of daily living * Social factor | Quantitative study: Modeling | Spain | Ruben, Roman  Et al; 2008(24) | 24 |
| * Severity of condition- | * Expected benefit * Waiting time | Qualitative study | Norway | Jan Erik Askildsen  Et al; 2008(25) | 25 |
| * Severity of disease | * Age * Sex | Quantitative study: questionnaire | Finland | I. Isojoki; 2008(26) | 26 |
| * Pain | * Social limitations * Impairments in work | Questionnaire | Netherlands | Jurriaan P, Oudhoff; Et al; 2007(27) | 27 |
| * Severity of disease * Pain * LV function * Result of stress testing | * Ability to work   Dependents- | Literature review and review article | Netherlands | N W Jackson  Et al; 1999(28) | 28 |
| * Pain * Severity of disease * Probability of recovery | * Disability * Affecting outcome by delay | Review article and interview | New Zealand | Kevin dew; Et al; 2006(29) | 29 |
| * Emotional distress | * Limitations on ability to work | Interview | Netherlands | G.L.M. Hilkhuysen  Et al; 2005(30) | 30 |
| * Physical role bodily pain vitality * Social functioning * Role emotional mental health- | * Social functional | Descriptive study: questionnaire | New Zealand | J-C. Theis; 2004(31) | 31 |
| * Severity of disease risk * Future complications * Psychological | * Quality of life * Socio-political/logistic | Interview | New Zealand | Andrew MacCormick; 2004(32) | 32 |
| * Pain * Frequent pain | - | Literature review and  Expert panel | Canada | T. W. Noseworthy  Et al; 2003(33) | 33 |
| * Left ventricular function * Myocardial infarction * Congenital heart disease history of hypertension * BMI | - | Quantitative study:  Modeling | Iceland | A. Andrew Ray; 2002(34) | 34 |
| * Malignant disease | * Waiting time * Age * Sex | Quantitative study:  Modeling | New Zealand | A Ndrew  D. M  Ac C Ormick; 2002(35) | 35 |
| * Pain | * Ability to work * Sudden threat * Quality of life * Dependents * Disability- * Limitations on ability to work- | Prospective cohort | New Zealand | Sarah  Derrett  Et al; 2002(36) | 36 |
| * Angina * Previous open-heart surgery * Previous PTCA * Positive exercise test * Familial cardiovascular disease * History of hypertension * Diabetes mellitus * History of hypercholesterolemia * Peripheral arterial disease | * Age * Smoking | Prospective cohort | Netherlands | Egbert M. Koomen  Et al; 2000(37) | 37 |
| * Progression of the disease * Pain * Distress | * Dependents * Waiting time | Delphi technique | England | Alastair  Laek; 2000(38) | 38 |
| * Pain on activity * Pain at rest * History of myocardial infarction * ECG changes | - | Review article and  Delphi technique | England | Harry Hemingway;2000(39) | 39 |
| * ECG changes * Positive exercise test | * Waiting time | Prospective cohort | Canada | David A. Alter; 1999(40) | 40 |
| * Severity of disease | * Age * The economic status * Ability to work | Quantitative study: questionnaire | Finland | Ryynänen OP; 1999(41) | 41 |
| - | * Waiting time * Value to society * Drugs * Alcohol consumption * Outcome * Work status | Quantitative study: questionnaire | England | James Neuberger, et al; 1998(42) | 42 |
| * Exercise test * Diabetes mellitus * Previous myocardial infarction | - | Clinical trial | New Zealand | D P de Bono  Etal; 1998(43) | 43 |
| * Pain * Stress tests * Left ventricular function * BMI | * Sex * Age * Smoking | Literature review and quantitative study | northern Irland | F. Kee1 et al; 1996(44) | 44 |
| * Severity of disease exercise test * Left ventricular function | - | A prospective observation | Canada | Jafna L etal; 1996(45) | 45 |

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