

Data supplement

Appendix DS1

Search strings for PubMed, EMBASE and PsycINFO

PubMed

("mood disorders" [MeSH] OR depression [MeSH] OR depression [tiab] OR depressive [tiab]) AND ("myocardial infarction" [MeSH] OR "myocardial infarction" [tiab])
humans only

EMBASE

("mood disorder" OR "depressive symptoms" OR "depressive symptomatology" OR depressed) AND ("heart infarction" OR "myocardial infarction")
map to preferred terminology, explosion search, search terms must be major focus, search humans only, Embase only.

PsycINFO

((major depression) OR depression OR depressive) AND ((myocardial infarctions) OR (myocardial infarction))

Table DS1 Overview of participating studies

PI, study name, country	Start of study, year	Sample size ^a <i>n</i>	Inclusion criteria	Exclusion criteria	Mean age, years	Depression measurement instrument and cut-off score ^b	Patients with depression, <i>n</i> (%)	Depression score Mean (s.d.)	Mean follow-up time, days	No. of events
Carmey RM, Blumenthal JA ENRICHD and ancillary HRV study ^c USA ⁴¹⁻⁴³	1996/1997	2848 (58% male)	Standardised criteria for MI; low social support or depression Ancillary study: no depression or social isolation, otherwise eligible for ENRICHD	Other life-threatening medical illness; cognitive impairment; too ill; other major psychiatric disorder; unable/refused to participate	61	BDI-1A ≥ 10	1951 (69)	14.13 (8.87)	ACM 834 CVE 609	ACM 350 CVE 1151
de Jonge P, Ormel J MIND-IT The Netherlands ⁴⁰	1999	1814 (77% male)	Standardised criteria for MI; age ≥ 18 years	Other life-threatening medical illness; MI during hospital- isation for other reason; psychiatric depression treatment; participant in conflicting clinical trial	61	BDI-1A ≥ 10	474 (26)	6.77 (6.18)	ACM 2167 CVE 1517	ACM 278 CVE 784
de Jonge P, Ormel J DepreMI The Netherlands ⁴⁴	1997	528 (81% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; too ill; unable to communicate; MI during hospitalisation for other reason	61	Modified Dutch version of CIDI 2.1 BDI-1A ≥ 10	CIDI 73 (15) BDI 117 (23)	6.80 (6.12)	ACM 2663 CVE 1851	ACM 116 CVE 237
Denollet J The Netherlands ²⁰	2003	501 (78% male)	Standardised criteria for MI; age > 30 years	Other life-threatening medical illness; cognitive impairment	60	BDI-1A ≥ 10	132 (26)	7.03 (6.18)	ACM 1374 CVE 1284	ACM 38 CVE 82
Doyle F, McGee HM Ireland ⁴⁵	2003	433 (75% male)	Standardised criteria for ACS (only MI patients were included in the IPD meta-analysis)	NR	63	HADS-D > 7 BDI-FS > 3	HADS-D or BDI-FS 75 (17)	HADS-D 4.14 (3.26) BDI-FS 1.88 (2.69)	ACM 356 CVE NA	ACM 17 CVE NA
Doyle F, McGee HM Ireland ⁴⁶	2006	285 (80% male)	Standardised criteria for ACS (only MI patients were included in the IPD meta-analysis)	Patient too distressed	61	HADS-D > 7 BDI-FS (6-item) > 3	Either HADS-D or BDI-FS 78 (27) HADS-D 33 (12) BDI-FS 69 (24)	HADS-D 3.52 (3.07) BDI-FS 2.15 (2.84)	ACM 427 CVE 427	ACM 19 CVE 67
Bergerone S Italy ⁴⁵	1999	98 (78% male)	Standardised criteria for MI	In-hospital mortality; other major psychiatric disorder; alcoholism; antidepressant therapy	62	Structured interview based on DSM-IV criteria BDI-1A ≥ 10	MDD 14 (14) BDI 35 (34)	BDI 8.34 (8.48)	ACM 1485 CVE 1485	ACM 6 CVE 29
Hosseini SH Iran ³⁹	2004	540 (69% male)	Standardised criteria for MI	Other life-threatening medical illness; MI result of CABG or angiography; too ill	58	BDI-1A ≥ 10	355 (66)	14.20 (9.80)	NA (24 months)	ACM NA CVE 55
Lane DA UK ^{46,47}	1997	288 (75% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; MI result of CABG or angiography; unable to communicate; too ill	63	BDI-1A ≥ 10	89 (31)	7.72 (6.26)	ACM 976 CVE NA	ACM 38 CVE NA

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Table DS1 Overview of participating studies (continued)

PI, study name, country	Start of study, year	Sample size ^a <i>n</i>	Inclusion criteria	Exclusion criteria	Mean age, years	Depression measurement instrument and cut-off score ^b	Patients with depression, <i>n</i> (%)	Depression score Mean (s.d.)	Mean follow-up time, days	No. of events
Pilote L Canada ⁴⁸	1996	553 (81% male)	Acute MI; survival up to 24 h after hospital admission; admission through emergency department	Physically unable to respond to questions; unable to communicate	60	BDI-1 ≥ 10	193 (35)	9.07 (7.93)	ACM 350 CVE 205	ACM 32 CVE 222
Parakh K, Ziegelstein RC USA ⁴⁹	1995	284 (57% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; too ill	65	SCID BDI-1A ≥ 10	MDD 29 (10) BDI 5 (20)	BDI 5.76 (6.15)	ACM 2428 CVE NA	ACM 153 CVE NA
Rafanelli C Italy ³³	1995	61 (85% male)	Standardised criteria for MI; first MI	NR	59	Modified SCID (minor and major depression)	7 (11)	NA	NA (24 months)	ACM 4 CVE 22
Sato H OACIS Japan ⁵¹	1998	1042 (80% male)	Standardised criteria for MI	In-hospital mortality; other major psychiatric disorder; unable to communicate	63	ZSDS ≥ 40	438 (42)	38.03 (9.07)	NA (12 months)	ACM NA CVE 283
Steads RP UK ⁵²	1999	131 (33% male)	MI; age <75 years	NR	60	BDI-II ≥ 14	52 (40)	12.42 (9.09)	ACM 457 CVE NA	ACM 11 CVE NA
Grace SL Canada ⁵³	1997	468 (72% male)	Confirmed MI; age ≥ 18 years	Too ill; unable to communicate	61	BDI-1A ≥ 10	136 (28)	7.93 (7.22)	NA (12 months)	ACM 29 CVE 101
Welin C Sweden ⁵⁴	1985	270 (84% male)	Standardised criteria for MI; first MI; age <65 years	NR	56	ZSDS ≥ 40	96 (36)	36.76 (8.58)	NA (120 months)	ACM 65 CVE 73

ACM, all-cause mortality; ACS, acute coronary syndrome; BDI, Beck Depression Inventory; BDI-FS, Beck Depression Inventory – Fast Scale; CIDI, Composite International Diagnostic Interview; CVE, cardiovascular events; DepreMI, Depression after Myocardial Infarction; ENRICH, Enhancing Recovery in Coronary Heart Disease; HADS-D, Hospital Anxiety and Depression Scale – Depression subscale; HRV, heart rate variability; IPD, individual patient data; MDD, major depressive disorder; MI, myocardial infarction; MIND-IT, Myocardial Infarction and Depression Intervention Trial; NA, not available; NR, not reported; OACIS, Osaka Acute Coronary Insufficiency Study; PI, primary investigator; SCID, Structured Clinical Interview for DSM; ZSDS, Zung Self-Rating Depression Scale.

a. Number of patients included in the IPD meta-analysis.
b. Depression measurement instrument used in the IPD meta-analysis.
c. Part of the non-depressed control group came from an ancillary study and some of the patients in the non-depressed control group had low social support. Patients with depression were oversampled for the purpose of the study.

Table DS2 Overview of non-participating studies

First author; study name; country	Start of study	Sample size, n	Inclusion criteria	Exclusion criteria	Mean age, years	Depression measurement instrument and cut-off score	Patients with depression, n (%)	Follow-up time, days	Reason for exclusion
Ahern DK CAPS USA ⁸⁵	1983	351	MI 6–60 days pre-enrolment, baseline Holter monitoring ≥ 10 ventricular premature complexes/h or ≥ 5 episodes of unsustainable ventricular tachycardia; age < 75 years; LVEF > 20%	illiterate in English; inadequate eyesight; poor dominant hand mobility	NR	BDI (version and cut-off score NR)	140 (40)	365	Unable to contact
Frasure-Smith N EPPi/M-HART Canada ¹⁶	1991	89 (68% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; periprocedural MI; unable to communicate; too ill; lived too far away; administrative reasons	59	BDI (version NR) ≥ 10	290 (32)	365	Not interested
Frasure-Smith N Canada ⁸⁶	1991	222 (78% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; periprocedural MI; unable to communicate; too ill	60	BDI (version NR) ≥ 10 DIS	BDI 66 (31) DIS 34 (15)	549	Not interested
Irvine J CAMIAT Canada ⁸⁷	1990	301 (82% male)	Standardised criteria for MI; frequent or repetitive ventricular depolarisation within 6–45 days of MI	illiterate in English and French; death before 2-week post-randomisation clinic visit	64	BDI (version NR) ≥ 10	98 (33)	732	Unable to contact
Kaufmann MW USA ⁸⁸	1995	331 (66% male)	Standardised criteria for MI	Other life-threatening medical illness; cognitive impairment; illiterate in English; too ill; in-hospital mortality	65	DIS ≥ 5	87 (26)	365	Unable to contact
Ladwig KH PILP Germany ⁸⁹	1983	553 (100% male)	Standardised criteria for MI; male gender, age < 66 years	NR	54	KSb-S 90%	80 (14)	183	Data not available
Mayou RA OMIS UK ⁹⁰	1994	344 (73% male)	Standardised criteria for MI	Age ≥ 80 years; index MI within 28 days of preceding event	63	HADS ≥ 11	26 (8)	549	Data not available
Nakatani D OACIS Japan ⁹¹	1999	1803	Standardised criteria for MI	Unable to communicate; in-hospital mortality; major psychiatric disorder	NA	ZSDS ≥ 40	860 (48)	732	Data not available
Rumsfeld JS EPHESUS USA ⁹²	1999	634 (72% male)	Standardised criteria for MI; MI complicated by LV dysfunction and heart failure	Valvular or congenital heart failure; diuretics other than eplerenone	65	MOS-D ≥ 0.06	143 (23)	488	Unable to contact
Silverstone P UK ⁹³	1984	108 (75% male)	MI	NR	63	MADRS ≥ 14	48 (44)	8	Unable to contact

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Table DS2 Overview of non-participating studies (continued)

First author; study name; country	Start of study	Sample size, n	Inclusion criteria	Exclusion criteria	Mean age, years	Depression measurement instrument and cut-off score	Patients with depression, n (%)	Follow-up time, days	Reason for exclusion
Smolderen KG PREMIER USA ⁹⁴	2003	2347 (68% male)	Standardised criteria for MI; age \geq 18 years	Transfer from other facilities >24h after MI; incarcerated; unable to communicate	61	PHQ \geq 10	516 (22)	1460	Data not available
Sørensen C Denmark ⁹⁵	1999	761 (76% male)	Standardised criteria for MI	Other life-threatening medical illness; age > 76 years; major psychiatric disorder; unable to speak Danish; not living in Denmark	59	MDI (cut-off NR)	73 (10)	365	Unable to contact
Strik JJ The Netherlands ⁹⁶	1997	206 (76% male)	Standardised criteria for MI; first MI	Other life-threatening medical illness; major psychiatric disorder; unable to communicate; living too far away	59	SCID	63 (31)	1095	Unable to contact
Sydeman SJ USA ⁹⁷	1996	111 (60% male)	Standardised criteria for MI	Other life-threatening medical illness; periprocedural MI; age < 35 years; illiterate in English; cognitive impairment; too ill; in-hospital mortality	62	BDI \geq 10 SCID	BDI NR SCID 5 (5)	183	Data not available

BDI, Beck Depression Inventory; CAMIAT, Canadian Amiodarone Myocardial Infarction Arrhythmia Trial; CAPS, Cardiac Arrhythmia Pilot Study; DIS, Diagnostic Interview Schedule; EPHEUS, Eplerenone Post-acute Myocardial Infarction Heart Failure Efficacy and Survival Study; EPPI, Emotions and Prognosis Post-infarct; KSB-S, Klinische Selbstbeurteilungsskalen aus dem Münchner psychiatrische Informations-System; LV, left ventricle; MADRS, Montgomery-Asberg Depression Rating Scale; MDI, Major Depression Inventory; M-HART, Montréal Heart Attack Readjustment Trial; MI, myocardial infarction; MOS-D, Medical Outcomes Study - Depression score; NR, not reported; OACS, Osaka Acute Coronary Insufficiency Study; OMIS, Oxford Myocardial Incidence Study; PHQ, Patient Health Questionnaire; PILP, Post Infarction Late Potential Study; PREMIER, Prospective Registry Evaluating Outcomes after Myocardial Infarction; Events and Recovery; SCID, Structured Clinical Interview for DSM; ZSDS, Zung Self-rating Depression Scale.