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Table 2: Study characteristics, measures and results on prognostic significance of studies included in the review

Cancer type	First author and year	Patients/N	Trial phase	PRO assessment	Controlled factors	PROs related to OS (Hazard Ratio (HR); Confidence Interval (CI); P-values)	Median survival (months)
Lung	Bottomley, A. (2007)	Malignant pleural mesothelioma, advanced n = 229	III	QLQ-C30, QLQ-LC13	Histology, stage, serum markers, time since diagnosis, prognostic index	**PA** (HR: 1.177; CI: 1.112-1.246; P-values: 0.01) **AL** (HR: 1.072; CI: 1.017-1.131; P-values: 0.11)	10.1
Lung	Movsas, B. (2009)	Locally advanced, II, IIIAB n = 217	III	QLQ-C30, LC13	PS, gender, age, race, sociodemographic, histology, tumour, smoking status, treatment, serum markers	**PF** (HR: 0.989; CI: 0.981-0.998; P-values: 0.011) **GHQ** (Patients with a GHQ lower than 66.7 HR: 1.64; CI: 1.18-2.28; P-values: 0.004 Patients with higher baseline GHQ scores of 10 points HR: 0.99 ; CI : 0.984-0.997; P-values: 0.004) **DY** (HR: 1.088; CI: 1.019-1.162; P-values: 0.012)	NR
Lung	Kao, S. (2013)	Mesothelioma n = 63	II	LCSS	Age, gender, PS, histology, treatment, lymph information	**Cough** (HR: 1.14; CI: 1.01-1.28; P-values: 0.04) **Overall symptomatic distress (GHQ)** (HR: 1.13; CI: 1.00-1.27; P-values: 0.04) **Interference with normal activity (PF)** (HR: 1.13; CI: 1.00-1.27; P-values: 0.004) **Global QoL** (HR: 1.17; CI: 1.03-1.34; P-values: 0.02) **Total LCSS score** (HR: 1.25; CI: 1.05-1.5; P-values: 0.01)	9.5
Non-small-cell lung-cancer	Qi, Y. (2009)	Advanced stage III/IV n = 355 (Uniscale), n = 217 (LCSS)	II/III	Single item uniscale, LCSS, FACT-L	Age, gender, BMI, serum markers	**Uniscale sample** (Uniscale Sample Median Categorization HR: 1.63; CI: 1.29-2.06; P-values: <0.0001 Uniscale CDS Categorization HR : 2.02 ; CI: 1.46-2.79 ; P-values: <0.0001)	NR
Non-small-cell lung cancer	Ediebah, D. (2014)	Advanced, IIIB/IV	III	QLQ-C30, QLQ-LC13	Age, gender, PS, histology, stage	**PF** (HR: 0.93; CI: 0.88-0.98; P-values: 0.01) **PA** (HR: 1.11; CI: 1.06-1.15; P-values: <0.0001) **DY** (HR: 1.12; CI: 1.04-1.20; P-values: 0.002)	NR

Non-small-cell lung-cancer	Spigel, D. (2015)	IIIB or IV n = 850	III	FACT-G/Lung/Gynaecological Oncology group neuro toxicity	Gender, age, race, PS, cancer classification, site data, sociodemopgrahic, smoking status, stage,	**FACT-G (GHQ)** (HR: 0.66; CI: 0.56-0.77; P-values: <0.001) **FACT-L** (HR: 0.63; CI: 0.53-0.74; P-values: <0.001) **FACT-L-TOI** (HR: 0.58; CI: 0.49-0.69; P-values: <0.001) **FACT-Ntx** (HR: 0.64; CI: 0.55-0.76; P-values: <0.001) **FACT-Ntx TOI** (HR: 0.6; CI: 0.51-0.7; P-values: <0.001)	NR
Non-small-cell lung cancer	Fiteni, F. (2016)	Advanced	III	QLQ-C30	Gender, age, treatment, PS, smoking status, stage, histology	**GHQ** (HR: 0.986; CI: 0.98-0.992; P-values: 0.001)	NR
Non-small-cell lung cancer	Movsas, B. (2016)	Unresectable stage III n = 313	III	FACT-TOI	Treatment,	**FACT-TOI (GHQ)** (HR: 0.901; CI: 0.813-0.998; P-values: 0.046)	NR
Small-cell lung cancer	Reck, M. (2012)	Extensive stage n = NR	III	FACT-G	Age, gender, metastasis, serum markers, PS	**FACT-PWB (PF)** (HR: 0.62; CI: NR; P-values: <0.001) **FACT FWB** (HR: 0.55; CI: NR; P-values: <0.001) **FACT-G (GHQ)** (HR: 0.56; CI: NR; P-values: <0.001)	NR
Head & Neck	Coyne, J. (2007)	Advanced, stage III or IV n = 1093	III	FACT-G	Age, PS, tumour, lymph node, smoking status, sociodemographic	/	NR
Head & Neck	Siddiqui, F. (2008)	III-IV squamous cell carcinoma or II-IV of the oral cavity carcinoma of the base of tongue	III	FACT-H&N (where are included FACT-G and H&N subscale components	Tumour, node, PS, site data, smoking status, prior treatment	/	NR

		n = 1510/1093					
Head & Neck	Meyer, F. (2009)	Stage I or II n = 540	NR	QLQ-C30 & H&N radiotherapy questionnaire	Stage, site, age, smoking status, alcohol status, BMI, treatment	**PF** (HR: 0.87; CI: 0.81-0.94; P-values: 0.00063)	NR
Head & Neck	Urba, S. (2012)	Advanced	III	FACT-H&N	Age, race, gender, PS, prior treatment, site data, metastasis	**PWB (PF)** (HR: 0.93; CI: 0.88-0.98; P-values: 0.009) **SWB (SF)** (HR: 0.94; CI: 0.-90-0.99; P-values: 0.0014) **Additional concerns H&N** (HR: 0.89; CI: 0.84-0.94; P-values: <0.001)	8.7, 8.2 (by arms)
Head & Neck	Truong, M. (2016)	Locally advanced, III-IV n = 818	III	FACT-HN, PSS-Hn, EQ-5D	Treatment, age, gender, race, PS, smoking status, site data, tumour, node, ethnicity, cancer classification	**PPS-HN diet** (HR: 0.875; CI: 0.832-0.919; P-values: <0.001) **PSS-HN eating** (HR: 0.805; CI: 0.705-0.919; P-values: 0.0013) **FACT-G total (GHQ)** (HR: 0.893; CI: 0.815-0.978; P-values: 0.0152) **FACT-HN (HR: 0.892; CI: 0.834-0.955; P-values: 0.0009)** **EQ-5D (GHQ) (HR: 0.875; CI: 0.812-0.942; P-values: 0.0004)**	NR
Head & Neck	Xiao, C. (2017)	Locally advanced, III-IV n = 646	III	PSS-HN, HNRQ, SQLI	Treatment, age, race, ethnicity, PS, site data, node, tumour, smoking status, cancer classification	**PPS-HN diet** (HR: 0.944; CI: 0.91-0.975; P-values: 0.006) **PSS-HN eating** (HR: 0.871; CI: 0.792-0.957; P-values: 0.0041) **PSS-HN speech** (HR: 0.824; CI: 0.724-0.938; P-values: 0.0035) **HNRQ** (HR: 0.78; CI: 0.704-0.864; P-values: <0.0001) **SQLI (GHQ)** (HR: 0.919; CI: 0.867-0.973; P-values: 0.004)	NR
Pancreatic	Bernhard, J. (2010)	Advanced n = 257	III	LASA	metastasis, PS, treatment, tumour	**PA** (HR: 0.63; CI: 0.44-0.92; P-values: 0.015) **FA** (HR: 0.65; CI: 0.45-0.96; P-values: 0.03)	NR

Pancreatic	Romanus, D. (2012)	Advanced, III-IV n = 267	III	EQ-5D	Age, progression of disease, PS, race	**EQ-5D (GHQ)** (HR: 0.98; CI: 0.99; P-values: NR) **VAS** (HR: 0.97-0.99; CI: 0.98-0.99; P-values: NR)	NR
Pancreatic	Gourgou-Bourgade, S. (2013)	Metastatic	II/III	QLQ-C30	Treatment, age, serum markers, metastasis, site data	**PF** (HR: 0.91; CI: 0.84-0.99; P-values: 0.04) **DY** (HR: 1.06; CI: 1.01-1.11; P-values: 0.01) **CO** (HR: 1.06; CI: 1.00-1.14; P-values: 0.01)	11.1, 6.8 (by arms)
Pancreatic	Diouf, M. (2015)	Adenocarcinoma, metastatic n = 59	III	QLQ-C30	age, gender, tumour, metastasis, PS, genetic, alkaline phosphatase, serum markers, BMI	**RF** (HR: 0.98; CI: 0.966-0.993; P-values: 0.0029) **SL** (HR: 1.021; CI: 1.007-1.036; P-values: 0.0028)	8.9
Pancreatic	Vickers, MM. (2016)	Advanced n = 441	III	QLQ-C30	PS, age, gender, race, comorbidities, progression of disease, treatment	**PF** (HR: 0.86; CI: 0.8-0.93; P-values: 0.0001)	NR
Ovarian	Carey, MS. (2008)	Advanced n = 152	III	QLQ-C30, trial specific checklist	PS	**CF** (HR: 0.89; CI: 0.81-0.98; P-values: 0.01) **GHQ** (HR: 0.92; CI: 0.86-0.99; P-values: 0.03)	NR
Ovarian	Chase, D. (2012)	Advanced and recurred, IVB	III	FACT-Cx and a single-item pain scale	Treatment, PS, race, site data, prior treatment, time to recurrence, age	**PWB (PF)** (HR: 0.963; CI: 0.951-0.975; P-values: <0.001)	NR

Ovarian	von Gruenigen, VE. (2012)	III	III	FACT-G	Age, treatment, comorbidities	**PWB (PF)** (HR: 0.8; CI: 0.68-0.93; P-values: 0.005)	NR
Ovarian	Roncolato, F. (2017)	Platinum-resistant n = 462	III	QLQ-C30, OV28	PS, treatment, serum markers	**PF** (HR: 0.98; CI: 0.98-0.99; P-values: <0.001) **Abdominal/gastrointestinal symptoms** (HR: 1.01; CI: 1.01-1.02; P-values: <0.001)	NR
Ovarian	Phippen, NT. (2017)	Advanced epithelial III/IV n = 1152	III	FACT-O TOI	Age, stage, tumour, PS	**FACT-TOI (GHQ)** (HR: 0.963; CI: 0.939-0.987; P-values: 0.003)	NR
Colorect al	Efficace, F. (2008)	Metastatic n = 443	III	QLQ-C30	PS, serum markers, alkaline phosphatase, metastasis, site data	**SF** (HR: 0.94; CI: 0.905-0.976; P-values: 0.001)	19.5
Colorect al	Diouf, M. (2014)	Metastatic n = 249	III	EQ-5D	PS, metastasis, alkaline phosphatase, serum markers, site, treatment	**Mobility (PF)** (HR: 1.66; CI: 1.12-2.48; P-values: 0.0117)	18.6
Colorect al	Mol, L. (2016)	Advanced n = 1254	III	QLQ-C30	PS, prior treatment, serum markers, metastasis,	**PF** (HR: 0.57; CI: 0.46-0.72; P-values: 0.000 Good vs. Poor PF HR: 0.68; CI: 0.55-0.84; P-values: 0.046)	NR
Prostate	Halabi, S. (2008)	Metastatic castration-refractory, II n = 599	III	BPI	Age race, time since diagnosis, metastasis, serum markers, prior treatment, PS,	**PA interference** (HR: 1.43; CI: 1.17-174; ; P-values: <0.001)	NR

					alkaline phosphatase,		
Prostate	Bahl, A. (2013)	Metastatic castration-resistant n = 342	III	McGill-Melzack & Analgesic scoring method	Age, PS, genetic, comorbidities, treatment, disease progression, AE	**PA** (HR: 0.482; CI: 0.268-0.867; P-values: 0.0149)	13.7
Prostate	Beer, TM. (2017)	Castration-resistant	III	FACT-P	Treatment, age, time since diagnosis, PS, prior treatment, comorbidities, metastasis, disease progression	**FACT-P total** (HR: 0.88; CI: 0.84-0.93; P-values: NR) **FACT-G total (GHQ)** (HR: 0.90; CI: 0.87-0.95; P-values: NR) **FAPSI** (HR: 0.94; CI: 0.90-0.97; P-values: NR) **TOI** (HR: 0.83; CI: 0.78-0.88; P-values: NR) **PCS PA related score (PA)** (HR: 0.92; CI: 0.87-0.97; P-values: NR) **FWB** (HR: 0.90; CI: 0.84-0.96; P-values: NR) **SWB (SF) (HR:** 1.11; CI: 1.05-1.19; P-values: NR**)**	NR
						PWB (PF) (HR: 0.85; CI: 0.77-0.93; P-values: NR) **EWB (EF)** (HR: 1.17; CI: 1.08-1.26; P-values: NR) **Prostate cancer subscale score** (HR: 0.89; CI: 0.84-0.94; P-values: NR) **Prostate cancer subscale PA related (PA)** (HR: 0.88; CI: 0.83-0.94; P-values: NR) **FAPSI** (HR: 0.88; CI: 0.84-0.91; P-values: NR) **FACT P trial outcome index** (HR: 0.82; CI: 0.72-0.79; P-values: NR) **FACT-G total** (HR: 0.94; CI: 0.89-0.98; P-values: NR) **FACT-P total** (HR: 0.9; CI: 0.86-0.95; P-values: NR)	NR
Oesophageal	Bergquist, H. (2007)	Advanced n = 96	NR	QLQ-C30 & QLQ-OES18	Sociodemographic, prognostic index, weight loss, tumour, cancer classification	**FA** (HR: 1.1; CI: 1.02-1.19; P-values: 0.016) **Reflux** (HR: 1.1; CI: 1.0-1.22; P-values: 0.04)	94 days

Oesopha geal	Heijl, M. (2010)	Potentially curable	NR	MOS SF-20 and adapted version of RSCL	Age, gender, tumour, weight loss, stage	**Physical symptom (GHQ)** (HR: 0.668; CI: 0.47-0.942; P-values: 0.021)	NR
Oesopha geal	Bascoul-Mollevi, C. (2017)	Inoperable, I-IVA n = 239	II/III	QLQ-C30, OES18	Age, gender, PS, stage	/	
Liver	Bonnetain, F. (2008)	Hepatocellul ar carcinoma, advanced n = 489	III	Spitzer QoL index	Gender, weight, age, tumour, comorbidities, serum markers, PS, site data,	**GHQ** (HR: 0.84; CI: 0.79-0.9; P-values: 0.0001)	5.26
Liver	Diouf, M. (2013)	Palliative n = 215	III	QLQ-C30	Age, gender, comorbidities, tumour, metastasis, serum markers, PS, thrombosis, site data	**PF** (HR: 2; CI: 1.32-3.01; P-values: 0.0012) **RF** (HR: NR; CI: NR; P-values: NR)	6.8
Brain	Mauer, M. (2007)	Anaplastic oligodendrog liomas - newly diagnosed of histologically proven n = 247	III	QLQ-C30 & BN20	Age, PS, tumour, treatment, necrosis	**EF** (HR: 1.217; CI: 1.077-1.374; P-values: 0.0016) **Communication deficit** (HR: 0.92; CI: 0.855-0.99; P-values: 0.0261) **Future uncertainty** (HR: 1.11; CI: 1.001-1.232; P-values: 0.0481) **Weakness of legs** (HR: 1.137; CI: 1.064-1.215; P-values: 0.0001)	40.3, 30.6 (by arms)
Brain	Mauer, M. (2007)	New diagnosed glioblastoma n = 490	III	QLQ-C30 & BN20	Age, gender, prior treatment, tumour, PFS, MMSE,	**CF** (HR: 0.918; CI: 0.878-0.959; P-values: 0.0001) **SF** (HR: 1.09; CI: 1.046-1.137; P-values: <0.0001) **GHQ** (HR: 0.929; CI: 0.882-0.979; P-values: 0.0055)	NR

					genetic, corticosteroids		
Brain	Paquette, B. (2016)	Unresectable glioblastoma, IV n = 102	II	QLQ-C30, BN20	Gender, age, treatment, PS, serum markers, MMSE, treatment, tumour, headaches, sensory deficit, seizures	**Future uncertainty** (HR: 1.011; CI: 1.004-1.019; P-values: 0.004)	NR
Breast	Smyth, E. (2016)	Advanced n = 336 (RSCL), n = 286 (BPI)	III	BPI-SF & RSCL	Age, race, PS, serum markers, prior treatment, menopausal status, comorbidities	**Worst PA** (HR: 1.05; CI: 1.00-1.1; P-values: 0.0342) **Activity level (PF)** (HR: 0.89; CI: 0.83-0.95; ; P-values: 0.0004)	NR
Breast	Svensson, H. (2012)	Metastatic	III	QLQ-C30	Age, PS, metastasis, site data, treatment arm, time since diagnosis	**FA** (HR: 1.09; CI: 1.01-1.18; P-values: 0.003)	NR
Myeloma	Viala, M. (2007)	Multiple, relapsed, refractory n = NR	II	QLQ-C30, QLQ-MY24, FACIT-fatigue scale, FACT/COG-Ltx scale	Age, gender, body surface area, PS, prior treatment, serum markers	**PF** (HR: 1.06; CI: NR; P-values: 0.0042) **FA** (HR: 0.981; CI: NR; P-values: 0.0394)	17
Gastric	Park, J. (2008)	Advanced n = 164	II	QLQ-C30	Age, gender, PS, weight loss, metastasis, serum	**SF** (HR: 0.36; CI: 0.21-0.62; P-values: <0.001)	9.5

					markers, prior treatment		
Melano ma	Brandberg, Y. (2013)	High-risk, stage III n = 785	III	QLQ-C30	Age, gender, PS, tumour, stage, lymph nodes, treatment, sleep	**RF** (HR: 0.94; CI: 0.9-0.98; P-values: 0.001)	NR