

Appendix two: Narrative summary of pain-related outcome measures

Outcome Measure	Studies considering outcome	Findings
Pain management index (a ratio of the strength of analgesic prescribed against patient reported pain intensity)	Anderson [17] Trowbridge [40]	None of the studies demonstrated improvements in pain management index in the intervention group compared to controls
Change in dose or prescription of opioid analgesics	Miaskowski [34] Rustoen [39]	There were no between group differences in total dose of opioid analgesics taken in 24 hours, or in types of opioid prescriptions at the end of the studies
Adherence to pain management guidelines	Bertsche [23]	Adherence to pain management guidelines significantly improved during the intervention period and pain intensity levels fell in participants over the same period
Reduction in symptom threshold events	Cleeland [18]	Pain threshold was set at greater than or equal to five out of ten. The number of pain events that reached threshold over time in the control group was approximately 52 events, compared to 22 events in the intervention group. The reduction in pain threshold events was statistically significant in favour of the intervention group
Overall symptom severity	Given [27]	There was no significant between group differences in overall symptom severity at 10 or 20 weeks, however when controlled for baseline pain severity, patients who entered the intervention group with higher pain scores had significant reductions in overall symptom severity at 10 and 20 weeks compared to controls.

Impact on medical consultation	Number of symptoms recorded in medical records	Ruland [37]	Significantly more symptoms were recorded in the medical records of intervention group participants compared to controls.
	Number of symptoms discussed (audio-recording of consultation) and number of specific discussions about pain	Berry et al [20, 22]	There was an increase in the number of symptoms raised during consultations in intervention group patients compared to controls. The addition of on-line self- management advice and communications coaching[22] did not result in the discussion of more symptoms than symptom monitoring alone.
		Velikova (secondary analysis by Takeuchi et al)[42,43]	Significantly more symptoms were discussed in the intervention group compared to controls but there was no increase in pain specific discussions.
		Kravitz (secondary analyses by Street et al)[29-32]	There was no difference in active participation in the consultation or overall number of symptoms discussed but more specific pain statements made in the intervention participants' consultations than controls. Changes in analgesic regime, but not the intervention itself was associated with a change in pain intensity ratings.[30]
		Wilkie[45]	Intervention group patients were more likely to use numerical ratings to communicate about pain intensity, and discussed significantly more pain parameters than control patients at the study end. Discussions about pain did not translate into adjustments in analgesia, and there was no significant change in pain levels in the intervention group compared to controls.