

**COMPENDIA TRANSPARENCY TRACKING FORM**

**DRUG:** Ketamine hydrochloride

**INDICATION:** Cancer pain, Opioid therapy; Adjunct

COMPENDIA TRANSPARENCY REQUIREMENTS	
1	Provide criteria used to evaluate/prioritize the request (therapy)
2	Disclose evidentiary materials reviewed or considered
3	Provide names of individuals who have substantively participated in the review or disposition of the request and disclose their potential direct or indirect conflicts of interest
4	Provide meeting minutes and records of votes for disposition of the request (therapy)

**EVALUATION/PRIORITIZATION CRITERIA:** C

\*to meet requirement 1

CODE	EVALUATION/PRIORITIZATION CRITERIA
A	Treatment represents an established standard of care or significant <b>advance</b> over current therapies
C	<b>Cancer</b> or cancer-related condition
E	Quantity and robustness of <b>evidence</b> for use support consideration
L	<b>Limited</b> alternative therapies exist for condition of interest
P	<b>Pediatric</b> condition
R	<b>Rare</b> disease
S	<b>Serious</b> , life-threatening condition

**Note: a combination of codes may be applied to fully reflect points of consideration [eg, therapy may represent an advance in the treatment of a life-threatening condition with limited treatment alternatives (ASL)]**

**EVIDENCE CONSIDERED:**

\*to meet requirements 2 and 4

CITATION	STUDY-SPECIFIC COMMENTS	LITERATURE CODE
Bell,R.F., Eccleston,C., and Kalso,E.A.: Ketamine as an adjuvant to opioids for cancer pain. Cochrane Database of Systematic Reviews 2012; Vol 2012, p. 1.	<u>Study methodology comments:</u> Cochrane Review	S
Currow,D.C., et al: A randomised, double-blind, placebo controlled, multi-site study of subcutaneous ketamine in the management of cancer pain. European Journal of Cancer Sep 2011; Vol 47 SUPPL. 1, p. S152.	<u>Study methodology comments:</u> This was an abstract.	3
Hardy,J., et al: Randomized, double-blind, placebo-controlled study to assess the efficacy and toxicity of subcutaneous ketamine in the management of cancer pain. J Clin Oncol Oct 10, 2012; Vol 30, Issue 29; pp. 3611-3617.	<u>Study methodology comments:</u> This was a multisite, dose-escalation, double-blind, randomized, placebo-controlled phase III trial. Key bias criteria evaluated were (1) random sequence generation of randomization; (2) lack of allocation concealment, (3) lack of blinding, (4) incomplete accounting of patients and outcome events, and (5) selective outcome reporting bias. The study was at low risk of bias for these key criteria, and no additional biases were identified.	S
Ishizuka,P., et al: Assessment of oral S(+) ketamine associated with morphine for the treatment of oncologic pain. Revista Brasileira de Anestesiologia 2007; Vol 57, Issue 1; pp. 19-31.	<u>Study methodology comments:</u> This was a prospective, randomized, double blind study. Overall, this study was at low risk for most of the key risk of bias criteria which included lack of blinding, incomplete accounting of patients and outcome events, and selective outcome reporting. The risk of bias associated with random sequence generation and allocation concealment was unclear and not discussed in the paper.	3

<p>Yang,C.Y., Wong,C.S., Chang,J.Y., et al: Intrathecal ketamine reduces morphine requirements in patients with terminal cancer pain. Can J Anaesth Apr 1996; Vol 43, Issue 4; pp. 379-383.</p>	<p><u>Study methodology comments:</u> This was a double blind, cross over study study. Overall, this study was at low risk for most of the key risk of bias criteria which included lack of blinding, incomplete accounting of patients and outcome events, and selective outcome reporting. The risk of bias associated with random sequence generation and allocation concealment was unclear and not discussed in the paper.</p>	<p>4</p>
<p>Salas,S., et al: Ketamine analgesic effect by continuous intravenous infusion in refractory cancer pain: considerations about the clinical research in palliative care. Journal of Palliative Medicine Mar 2012; Vol 15, Issue 3; pp. 287-293.</p>	<p><u>Study methodology comments:</u> This was a randomized, double-blind, placebo-controlled study. Overall, this study was at low risk for most of the key risk of bias criteria which included lack of blinding, incomplete accounting of patients and outcome events, and selective outcome reporting. The risk of bias associated with allocation concealment was unclear and not discussed in the paper.</p>	<p>3</p>
<p>Mercadante,S., et al: Analgesic effect of intravenous ketamine in cancer patients on morphine therapy: a randomized, controlled, double-blind, crossover, double-dose study. Journal of Pain &amp; Symptom Management Oct 2000; Vol 20, Issue 4; pp. 246-252.</p>		<p>4</p>

**Literature evaluation codes: S = Literature selected; 1 = Literature rejected = Topic not suitable for scope of content; 2 = Literature rejected = Does not add clinically significant new information; 3 = Literature rejected = Methodology flawed/Methodology limited and unacceptable; 4 = Other (review article, letter, commentary, or editorial)**

**CONTRIBUTORS:**

\*to meet requirement 3

PACKET PREPARATION	DISCLOSURES	EXPERT REVIEW	DISCLOSURES
Margi Schiefelbein, PA	None	Edward P. Balaban, DO	None
Stacy LaClaire, PharmD	None	Thomas McNeil Beck, MD	None
Felicia Gelsey, MS	None	James E. Liebmann, MD	None
		Jeffrey A. Bubis, DO	Other payments: Dendreon
		John M. Valgus, PharmD	None

**ASSIGNMENT OF RATINGS:**

\*to meet requirement 4

	EFFICACY	STRENGTH OF RECOMMENDATION	COMMENTS	STRENGTH OF EVIDENCE
<b>MICROMEDEX</b>	---	---		B
<b>Edward P. Balaban, DO</b>	Evidence is inconclusive	Class III - Not Recommended	Just not enough experience or information.	N/A
<b>Thomas McNeil Beck, MD</b>	Ineffective	Class III - Not Recommended	No evidence of benefit.	N/A
<b>James E. Liebmann, MD</b>	Ineffective	Class III - Not Recommended	The randomized trial of Ketamine showed a higher probability of harm from the drug than benefit. The Cochrane Review (done prior to the trial) showed no firm evidence to support the use of Ketamine in this setting.	N/A
<b>Jeffrey A. Bubis, DO</b>	Evidence is inconclusive	Class III - Not Recommended	No clear outcomes improvement.	N/A
<b>John M. Valgus, PharmD</b>	Evidence is inconclusive	Class III - Not Recommended	Thus far, the more robust clinical trials have not demonstrated any benefit of Ketamine. Although smaller cohort studies have demonstrated benefit, they are not sufficient level of evidence to support use.	N/A

