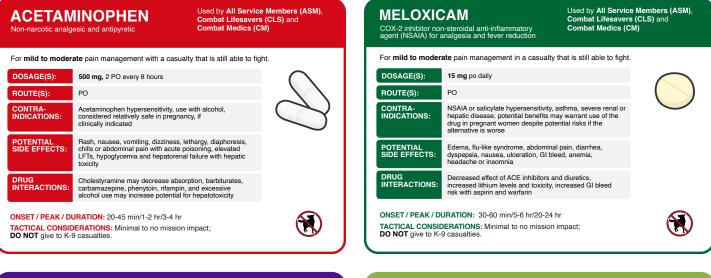


ANALGESIC MEDICATIONS

This TCCC pharmacology reference provides drug administration information based solely on TCCC Guidelines. This reference should not be used for the administration of these medications for any environment outside of tactical combat casualty care on the battlefield or in the combat/tactical setting.



KETAMINE

FENTANYL Potent narcotic (opiate) agonist

Used by Combat Medics (CM)

For mild to moderate pain management in a casualty that IS NOT in shock or in respiratory distress and IS NOT at significant risk of developing either condition.

DOSAGE(S):	800 mcg transmucosal, may repeat after 15 min;	Lang and
ROUTE(S):	Transmucosal – between the cheek and gum (CM)	
CONTRA- INDICATIONS:	Fentanyl allergy, significant hypotension, MAO inhibitors, myasthenia gravis, potential benefits may warrant use in pregnant women despite potential risks if the alternative is worse	
POTENTIAL SIDE EFFECTS:	Sedation, euphoria, bradycardia, hypotension, circulatory depression, miosis, blurred vision, nausea, vomiting, laryngospasm, bronchoconstriction or respiratory depression	Д
DRUG INTERACTIONS:	Alcohol and other CNS depressants potentiate effects, MAOIs may precipitate hypertensive crisis	\bigcup

ONSET / PEAK / DURATION: 15-60 sec (<transmucosal)/20 sec to 4 min/1-2 hr

TACTICAL CONSIDERATIONS: Casualty weapons, communications and sensitive equipment should be secured; alterations in mental status can adversely affect assessment for shock and/or traumatic brain injury – use AVPU method to establish baseline prior to medication administration; monitor alway, breathing, and circulation closely – be prepared to administer natoxone, if indicated.

	evere pain management in a casualty that IS in hemorrhagi or IS at significant risk of developing either condition.	ic shock or in
PAIN MANAGEMENT DOSAGE(S):	50-100 mg (0.5-1 mg/kg) IN, repeat q 20-30 min prn; 50-100 mg (0.5-1 mg/kg) IM, repeat q 20-30 min prn; 20-30 mg (or 0.3-0.3 mg/kg) slow IV or IO push, repeat q 20 min prn	
ROUTE(S):	IN, IM, IO & IV	2 2
CONTRA- INDICATIONS:	Head injury (may worsen severe TBI), hypersensitivity to ketamine, considered relatively safe in pregnancy, if clinically indicated	
POTENTIAL SIDE EFFECTS:	Edema, flu-like syndrome, abdominal pain, diarrhea, dyspepsia, nausea, ulceration, GI bleed, anemia, headache or insomnia	
DRUG INTERACTIONS:	Effects of ketamine are increased when combined with other analgesics or muscle relaxants	
ONSET/PEAK/D	URATION: 30 sec-4 min (IV <io<in<im) 1-10="" 5-25="" min="" min<="" td=""><td></td></io<in<im)>	
sensitive equipmen slowly over 1 minut assessment for sho establish baseline preclude the use of development of nys	DERATIONS: Casualty weapons, communications and at should be secured; IV ketamine should be administered le; alterations in mental status can adversely affect ck and/or traumatic brain injury – use AVPU method to prior to medication administration; eye injury does not ketamine; medication end points include control of pain or tagmus; increased secretions (be prepared to suction) athing, and circulation closely – be prepared to support ated.	X

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ANALGESIC MEDICATIONS

Continued...

	overdose and reversal of effects, including respiratory on, and hypotension.		Prevention and ma management medi	nagement of nausea and vomiting associated with pain cations.	
DOSAGE(S):	0.4-2 mg IV, IN or IM; repeat every 2-3 min to a max dose of 10 mg, as indicated		DOSAGE(S):	4 mg q 8 hrs, repeat after 15 min for persistent symptoms, no more than 8 mg/8 hr time block	
ROUTE(S):	IV, IN, IM	ז נ	ROUTE(S):	IV, IO, Translingual, IM	۲
CONTRA- INDICATIONS:	Hypersensitivity to naloxone, use cautiously in patients with cardiac irritability, considered relatively safe in pregnancy, if clinically indicated	NALOXONE	CONTRA- INDICATIONS:	Hypersensitivity to ondansetron, use cautiously in patients with hepatic failure, considered relatively safe in pregnancy, if clinically indicated	
POTENTIAL SIDE EFFECTS:	Analgesia reversal, tremors, hyperventilation, drowsiness, sweating, increased BP, tachycardia, nausea, vomiting		POTENTIAL SIDE EFFECTS:	Dizziness, lightheadedness, headache, sedation, diarrhea, constipation, dry mouth	ONDANS PARCTION
DRUG INTERACTIONS:	Cardiotoxic drugs (may cause serious CV effects) – use together cautiously, reverses analgesic effects of narcotic (opiate) agonists		DRUG INTERACTIONS:	Rifampin may decrease ondansetron levels	And the second second
DNSET/PEAK/D	URATION: 1-2 min/5-15 min/variable	-1	ONSET / PEAK / D min/4 hr	URATION: 20 sec-4 min (IV <io<translingual<im) 10-40<="" td=""><td></td></io<translingual<im)>	
as indicated; naloxo being administered symptoms) but con	DERATIONS: An overdose of naloxone is unlikely if used one should be readily available anytime narcotics are ; titrate to effect (resolving narcotic overdose signs and tinue to manage casualty's pain; naloxone may wear off serve closely for signs of recurrent opiate overdose.		with the oral dissol alternative to the C	DERATIONS: Do not use PO (pill form) – use translingual ving tablet (oral ondansetron is NOT an acceptable DDT formulation); do not handle ODT preparation with IO should be given by slow push.	