PANDEMIC FLU – SEVERE SYMPTOM MANAGEMENT CHART
ADULTS AND FRAIL ELDERS
JUNE 14, 2009

Symptom	**Medication**	**Route of Administration**	**Adult Dosage**	**Frail Elderly: comments**
Dyspnea or Air hunger	Morphine liquid concentrate (20 mg/ml)	Oral or sublingual	2 mg every 1 to 4 hours as needed. May increase to 4 mg as needed	Observe for tolerance to sedating effects of morphine over time. Smaller doses and longer intervals between doses may be needed if deep sedation not desired.
	Morphine injectable solution	Subcutaneous or IV	0.5 mg every 1 to 4 hours as needed. May increase to 1 mg if needed	Observe for worsened confusion or delirium; smaller doses and longer intervals between doses may be needed if deep sedation not desired.
	Alternatively, may add or substitute:			
	Lorazepam tabs (if necessary, dissolve in <1 ml of fluid)	Oral	0.5 mg every 8 hours scheduled or every 2 hours as needed. May increase to 1 mg if needed.	
	Lorazepam injectable solution	Subcutaneous, IV, or rectally as mircroenema	0.5 mg every 8 hours scheduled or every 2 hours as needed. May increase to 1 mg if needed.	
Distressing Cough	Morphine – liquid concentrate (20 mg/ml)	Oral or sublingual	2 mg every 1 to 4 hours as needed. May increase to 4 mg if needed	Lengthen interval between doses if patient develops progressive confusion or if deep sedation not desired
	Morphine – injectable solution	Subcutaneous or IV	0.5 mg every 1 to 4 hours as needed. May increase to 1 mg if needed	

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Symptom	Medication	Route	Adult Dosage	Frail Elderly: Comments
Secretions in patients unable to cough	Glycopyrrolate – tabs Glycopyrrolate injectable solution Atropine – 1% ophthalmic solution Scopolamine transdermal	Oral IV Oral/sublingual (not in eyes) Apply behind ear	0.5 to 1 mg every 8 hours as needed 0.2 to 0.4 mg every 6-8 hours as needed 2-4 drops every 2 to 4 hours as needed 1-2 patches every 3 days	Observe for increased confusion, constipation, urinary retention, or exacerbation of tachyarrhythmia. Glycopyrrolate is preferred as it is virtually without these side effects.
Fever Mild muscle aches Mild chest pain	Acetaminophen – tabs or Acetaminophen - oral suspension or Ibuprofen – tabs Ibuprofen - oral suspension	Oral Oral or rectal Oral Oral or rectal	650 to 1000 mg every 6 hours as needed 200 to 800 mg every 6 to 8 hours as needed	Acetaminophen preferred; Maximum dose 3 to 4 gm per day Ibuprofen not preferred; Maximum dose 3.2 grams per day. Should use a proton pump inhibitor or misoprostol for gastrointestinal protection.
Moderate-Severe pain	Morphine – liquid concentrate (20 mg/ml) Morphine – injectable solution	Oral or sublingual Subcutaneous or IV	15 mg every 1 to 4 hours as needed. May increase to 30 mg if needed 5 mg every 1 to 4 hours as needed. May increase to 10 mg if needed	5 mg every 1 to 4 hours as needed. May increase to 10 mg if needed 2 mg every 1 to 4 hours as needed. May increase to 4 mg if needed. Lengthen interval between doses if patient develops progressive confusion or if deep sedation not desired

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Symptom	Medication	Route	Adult Dosage	Frail Elderly: Comments
Nausea	Prochlorperazine - tabs Prochlorperazine - suppositories Prochlorperazine - injectable solution	Oral Rectal IV	5 -10 mg every 6 to 8 hours as needed; max 40 mg/day 25 mg every 12 hours as needed 5 - 10 mg every 3 to 4 hours as needed; max 40 mg/day	Caution in elderly; use lower doses and longer intervals
Nausea/Vomiting Alternatives	Lorazepam tabs (may use with haloperidol) Lorazepam injectable solution Promethazine – tabs Promethazine – suppositories Haloperidol tabs Or Injectable solution	Oral Subcutaneous, IV, or rectally as microenema Oral Rectal Oral Or IV or Subcutaneous	0.5 mg every 2 to 4 hours as needed. May increase to 1 mg if needed 0.5 mg every 2 to 4 hours as needed. May increase to 1 mg if needed 12.5 to 2.5 mg every 6 hours as needed 0.5 – 1 mg every 2 to 4 hours as needed. May increase to 2 mg if needed	Reduce dose or increase dosing interval as soon as symptoms permit, if deep sleep is not desired Reduce dose or increase dosing interval when symptoms permit in ambulatory patient to avoid gait deterioration
Diarrhea	Loperamide – caplets Morphine – liquid concentrate (20 mg/ml)	Oral Oral or sublingual	4 mg followed by 2 mg after each stool 2.5 mg every 2 to 4 hours as needed	Fecal impaction may present with diarrhea, which should resolve with disimpaction Loperamide unlikely to produce sedation or confusion; if patient requires morphine for pain or other non-diarrhea symptoms, loperamide may be added to the regimen.

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Dehydration	NaCl 0.9% IV solution	IV or subcutaneous	1 to 3 liters per 24 hours	Titrate to comfort; intravenous rehydration may worsen secretions and respiratory distress; patient not expected to recover may prefer to avoid parenteral fluids, since burdens may outweigh benefits
Constipation	Senna – tabs or liquid Bisacodyl – tabs Bisacodyl - suppositories To one of the above, may add: Docusate sodium - capsules	Oral Oral Rectal Oral	1 to 4 tablets daily, especially if using opioids 5-15 daily if senna not effective 10 to 20 mg daily if oral routes not used 100 mg BID - TID	Use enemas if no bowel movement for 72 hours, or sooner if patient at risk for fecal impaction. Docusate sodium used alone is ineffective
Anxiety/Agitation	Lorazepam tabs (if necessary dissolve in <1 ml of fluid) Lorazepam injectable solution	Oral Subcutaneous, IV, or rectally as a microenema	0.5 mg every 4 hours as needed. May increase to 1 mg if needed 0.5 mg every 4 hours as needed. May increase to 1 mg if needed	Observe for worsened confusion or delirium; smaller doses or longer intervals between doses may be needed if deep sedation not desired. Selective serotonin reuptake inhibitor (e.g. sertraline) may be helpful in patients who do not tolerate benzodiazepines, though effect usually delayed

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Anxiety/agitation (if Lorazepam is not adequate) OR Intractable symptoms, anxiety, existential distress	Phenobarbital – tabs Phenobarbital – injectable solution (130 mg/ml)	Oral Subcutaneous or IV	45 to 60 mg every 8 hours as needed. May increase to 90mg 45 to 60 mg every 8 hours as needed. May increase to 90mg	Smaller starting doses of phenobarbital and slower titration appropriate especially if deep sedation not desired
Hallucinations/ Disorientation Confusion Delirium	Haloperidol – tabs Or Haloperidol - injectable solution	Oral Or Subcutaneous or IV	0.5 - 1 mg every 2 to 4 hours as needed. May increase to 2 mg if needed.	Reduce dose or increase dosing interval when symptoms permit in ambulatory patient to avoid gait deterioration
Seizures: 1st line	Lorazepam tabs (if necessary dissolve in <1 ml of fluid) Lorazepam injectable solution	Oral Subcutaneous, IV, or rectally as microenema	2 mg every 10 minutes until seizure stops 2 mg every 10 minutes until seizure stops	In postictal phase, prolonged sedation could be due to residual effect of Lorazepam
	Phenobarbital tabs Or Phenobarbital Injectable	Oral Subcutaneous or IV	2.5 mg/kg twice daily	Max initial dose: 45 60mg