

# Adapting a Comfort Care Order Set in a Large Health System during the COVID-19 Pandemic

Laura E. Dingfield, MD, MEd,<sup>1</sup> Emilia J. Flores, PhD, RN,<sup>2</sup> Jacob A. Radcliff, PharmD,<sup>3</sup> Rebecca Stamm, MSN, RN, CCNS, CCRN,<sup>4</sup> and Tanya J. Uritsky, PharmD, CPE<sup>3</sup>

*Dear Editor:*

Access to high-quality end-of-life (EOL) care is important during the coronavirus disease 2019 (COVID-19) pandemic. Many health systems have established tools to guide pain, dyspnea, and anxiety management.<sup>1</sup> Our existing comfort care order set is embedded in the electronic medical record and includes initiation of intravenous (IV) opioids and nurse-driven titration of boluses and infusions. Although some aspects of this order set are applicable to treating patients with COVID-19, modifications are needed for the current situation. We engaged an interdisciplinary committee of stakeholders from across our health system to modify the order set using a number of guiding principles (Table 1).

## Ensure High-Quality Symptom Management for Patients at the EOL

When transitioning to comfort-focused care, patients, families, and medical teams need to know that patients will not suffer distressing symptoms. This is especially important in the current environment, when clinicians may be

outside of their comfort zone and loved ones may not be able to visit hospitalized family members.

## Conserve Personal Protective Equipment

Conservation of personal protective equipment (PPE) is a critical challenge, including during delivery of comfort-focused care. Updated guidelines use extension tubing for delivering IV medications (through pumps) from outside of patient rooms to preserve PPE. Continuous opioid infusions are introduced earlier in the protocol to facilitate the delivery of IV boluses through the infusion pump.

## Address Potential Shortages of Opioid Medications

Shortages of many opioids existed before the COVID-19 pandemic and there is concern that shortages could worsen due to increased use of IV opioids for intubated patients. Initial management in the modified order set recommends use of sublingual (SL) concentrates to conserve IV opioids. To balance administration of SL concentrates with PPE

TABLE 1. SUMMARY OF COMFORT CARE ORDER SET CHANGES

<i>Guiding principle</i>	<i>Pre-COVID order set</i>	<i>Post-COVID order set</i>
Conserve personal protective equipment	Initial management with intermittent IV bolus titration	Initial management with scheduled SL medication titration IV medications delivered through pumps located outside room
Address opioid shortages	Medication delivery inside room Initial management with IV opioids	Introduce low-dose IV infusions earlier in protocol Initial management defaulted to SL opioids
Ease of use	Ordering providers select opioid Defaulted order entry	Morphine identified as preferred opioid Defaulted order entry
Dissemination	Clear identification of “Initial Management” for opioid-naïve patients	Clear identification of “Initial Management” for opioid-naïve patients
	Nurse-driven titration protocol Formulary guideline	Nurse-driven titration protocol Updated formulary guideline Updated pathway
	Electronic pathway	Pathway accessible through cloud-based platform Pathway link embedded within order set Creation of frequently asked questions document

IV, intravenous; SL, sublingual.

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, USA.

<sup>2</sup>University of Pennsylvania Health System, Philadelphia, Pennsylvania, USA.

Departments of <sup>3</sup>Pharmacy and <sup>4</sup>Nursing, Penn Medicine, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania, USA.

conservation, scheduled medication doses are ordered and titrated based on frequency of as-needed doses. This allows nurses to limit entry into rooms, bundle care, and improve patient comfort. In addition, morphine is identified as the preferred opioid for both SL and IV routes to preserve more limited supplies of other opioids.

### Ease of Use

During the COVID-19 pandemic, many health care providers are working outside usual practice areas. An easily navigated order set is necessary, given limited ability to invest in education. To simplify use, the modified order set includes (1) preselected initial management with SL opioids and (2) opioid infusions with IV bolus orders populated with dose ranges to allow nurse-driven medication titration. Dose escalation pathways are easily visible to nurses in the orders.

### Dissemination

We developed a clinical pathway to educate staff on appropriate medication selection and titration<sup>2</sup> and employed two technology-based interventions to facilitate dissemination. First, the pathway exists on a cloud-based platform (Dorsata, Inc., Washington, DC) accessible to all clinicians within our system. Second, links to the clinical pathway are embedded in the order set for use at the point of care.<sup>3</sup> The pharmacy formulary guideline was also updated.

We successfully implemented a modified order set to provide comfort care to hospitalized patients in the context of the COVID-19 pandemic. Updates address key concerns while continuing to provide exceptional EOL care.

### Acknowledgments

The authors thank Joyce Hertzog, Whitney Hung, Rachel Klinedinst, Rachel Mea, Stanley Savinese, and Michael Soojian for their invaluable contributions to the comfort care order set updates.

### References

1. Bender MA, Hurd C, Solvang N, et al.: A new generation of comfort care order sets: Aligning protocols with current principles. *J Palliat Med* 2017;20:922–929.
2. Boaz A, Baeza J, Fraser A; (EIS) EISCG. Effective implementation of research into practice: An overview of systematic reviews of the health literature. *BMC Res Notes* 2011;4:212.
3. Bates DW, Kuperman GJ, Wang S, et al.: Ten commandments for effective clinical decision support: Making the practice of evidence-based medicine a reality. *J Am Med Assoc* 2003;10:523–530.

Address correspondence to:  
*Laura E. Dingfield, MD, MSED*  
*Perelman School of Medicine*  
*Hospital of the University of Pennsylvania*  
*3400 Spruce Street*  
*Philadelphia, PA 19104*  
 USA

*E-mail:* laura.dingfield@penmedicine.upenn.edu