tional Hospital Discharge Survey—are very similar, providing another source of validation.[3]

2. Although differences in complications (in this case device-related) between unilateral and bilateral knee arthroplasty were found, we can only restate that no causal relationships can be established from these data, and thus, possible explanations for the findings have to remain speculative.
3. As explained in the article, databases of this kind are limited by the amount of variables they collect. As such, detailed information on laterality, patient choice, causality in decision-making processes, and procedures performed during different hospitalizations are not available. Thus, the very good points made by Harrison *et al.* regarding such cofounders cannot be addressed further in this study.
4. The total number of deaths was 73 (0.26%) in the simultaneous bilateral, 21 (0.29%) in the staged bilateral, and 845 (0.14%) in the unilateral group. The weighted national estimates for in-hospital mortality based on these entries were n = 354, n = 107, and n = 4,121, respectively.
5. As with any study, the results and conclusions have to be interpreted in the context of its design. Thus, definitions of bilateral knee arthroplasty and unilateral total knee arthroplasty as presented in the methodology have to be considered.

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# Is GlideScope® the Best Way to Intubate?

*To the Editor:*

The ease of obtaining a good view of glottis with GlideScope® videolaryngoscope (Verathon Medical, Bothell, WA) has led to its increasing popularity over recent years. So much so that it is not only frequently used as the first-attempt intubation device in difficult intubation scenarios but is also being used increasingly as the first choice for securing airway in elective cases.[1] I agree with Dr. Stanley[1] that securing the airway in the shortest time and with minimal instrumentation is in the best interest of the patient and represents good clinical care. However, I tend to disagree that the GlideScope® meets all of these criteria. Although I find this device useful in difficult intubations, I rarely use it before performing a direct laryngoscopy in anticipated difficult intubations and almost never as a first-attempt intubation device in intubations not expected to be difficult. The major problem with GlideScope® is the difficulty in directing the endotracheal tube (ETT) toward the vocal cords.[2] Hence, the use of stylet is almost mandatory while intubating under GlideScope® guidance. Despite the fact that a variety of stylets and ETTs have been suggested to increase the chances of successful intubation with GlideScope®, there are numerous reports of airway trauma during intubation attempts.[3] The GlideScope® rigid stylet (Verathon Medical) is not always useful in directing the ETT toward the cords.[4] However, a malleable stylet is usually effective.[2] Although a 90° angulation of the stylet-loaded ETT is usually successful in most intubation attempts, sometimes a change in angulation is needed, and although it can be achieved easily, this requires the tube to be taken out before intubation can be attempted again, increasing the intubation time.

The eventual goal in airway management is to be able to pass the tube through the cords to ventilate the lungs and having a good view of the glottis greatly facilitates this goal; it is helpful to think of "laryngoscopy" and "intubation" as two separate steps in airway management, wherein difficulty could be encountered at the level of either step. Although satisfactory view of the glottis may sometimes not be achieved with direct laryngoscopy, intubation does not take very long if a reasonable view is achieved. GlideScope®, on the contrary, provides a good view of the glottis readily but the intubation is not always straightforward.[2,3] Also, it is not uncommon for intubation to be successful with a direct laryngoscopy after the failure of GlideScope®-guided intubation.[2] In patients with normal airway anatomy, GlideScope® use may be associated with an increased risk of airway trauma and postoperative sore throat.[5] A recent study has demonstrated that in anticipated difficult intubations, although the incidence of difficult laryngoscopy (Cormack–Lehane ≥ III) is considerably less with GlideScope® compared with conventional Macintosh laryngoscope, the laryngoscopy time is similar between the two, and importantly, the intubation time is significantly less with the Macintosh blade.[6] Experience from the emergency department also shows that although the rates of successful intubation on first attempt are not significantly different between GlideScope® and direct laryngoscopy, intubation using GlideScope® requires significantly more time.[7] Moreover, an assistant is frequently required to pass the ETT over the stylet.[2] Hence, I personally find it hard to justify using GlideScope® as the first-choice method for laryngoscopy, particularly for rapid sequence induction. Conversely, the equipment for conventional direct laryngoscopy is widely available, simpler to use, and less expensive than GlideScope®. In my opinion, the GlideScope® is a useful backup tool for intubations that failed with direct laryngoscopy. So, although I agree with

Dr. Stanley's concern about a possible GlideScope® letter to the patients, I am more concerned about anesthesiology residents getting less experience with direct laryngoscopy, especially in difficult intubation scenarios because of an increasing GlideScope® use. Direct laryngoscopy is an essential skill, and every effort should be made to maintain and improve it, especially in difficult scenarios, or else, future generations of anesthesiologists may find difficult airways more challenging, should such gadgets not be available for some reason.

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*In Reply:*

Dr. Sharma makes some very valid observations about the efficacy of the GlideScope® (Verathon Medical, Bothell, WA) and how, with this device, visualization of glottic structures can sometimes be accompanied by a frustrating inability to actually pass an endotracheal tube. Nevertheless, the GlideScope® is just one of a wide variety of video-assisted intubation devices that are now being used with increasing frequency, often as a first-line instrument. My principal concern, which prompted the correspondence,[1] is that neither is there currently a standard for documenting the use of these devices nor is there a consistent means of informing the patient that such a device was used. This could have significant implications for a future anesthetic, particularly if the anesthesia provider does not have access to a video-assisted device.

In the time since my initial correspondence, I have devised a difficult-intubation letter, which takes the form of an Excel spreadsheet template (Microsoft Corporation, Redmond, WA); it has drop-down menu choices for all of the key elements of a patient's airway evaluation and instrumentation. It takes less than a minute to complete, has been adopted by our large group practice, and is currently being translated into a variety of languages. I am happy to share this with anyone who is interested.

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# Postoperative Opioids Remain a Serious Patient Safety Threat

*To the Editor:*

The characterization by Dahan *et al.*[1] of overt opioid-induced respiratory depression (OIRD) requiring intervention in postoperative patients as rare and uncommon is troubling.

"Failure to Rescue" and postoperative respiratory failure (also known as Code Blue) are the first and third most common patient safety-related adverse events affecting the Medicare population in U.S. hospitals, accounting for 113 events per 1,000 at-risk patient admissions, and they result in death or anoxic brain injury in the majority of cases.* The resuscitation literature suggests that the most common antecedent vital sign abnormality to a cardiopulmonary arrest is respiratory in nature, and the worst outcomes often occur on the general care floor (GCF) and in patients whose preexisting morbidity score is low.[2–4] Fifty percent of Code Blue events involve patients receiving opioid analgesia.[5]

Diagnosing narcotic overdoses in hospitalized patients is difficult and often missed; yet, this circumstantial evidence implicating opioids in serious adverse events in the resuscitation literature is not apparent in the anesthesia literature. This may be because the anesthesia literature myopically focuses on surrogate measures of respiratory depression such as respiratory rate and $Spo_2$. These measures not only provide very "limited information" and are "loose indicators" of ventilatory adequacy, as acknowledged by Dahan *et al.*, but our literature also suffers from a lack of standardization, uses arbitrary threshold criteria, and predominantly comprises retrospective analysis of intermittent and manually charted data.[6] As such, these data are unreliable when compared with

* http://www.healthgrades.com/media/dms/pdf/PatientSafetyInAmericanHospitalsStudy2009.pdf. Accessed January 15, 2010.