tion in a table; however, the author did not
cite the ARDS Network trial of steroids in
late ARDS, together with the previous posi-
tive results.

In Section 8, on mechanical ventilation, the
author describes, in detail, lung-protec-
tive ventilation.

Section 9, on acid-base disorders, is well-
written. The influence of albumin on the
anion gap and the role of bicarbonate as a
buffer for acidosis were appropriately added
to this section. Section 10, on renal electro-
lyte disorders, gives a thorough review of
important electrolytes in critical care. Con-
trast-induced renal failure is appropriately
highlighted. One of the major advances in
recent critical care is the clinical meaning of
transfusion.

In Section 11, on transfusion practices in
critical care, the meaning of erythrocyte
transfusion is well-addressed.

Section 12, on disorders of body temper-
-ature, is new in this edition. The author re-
views the clinical issues of hyperthermia,
hypothermia, and fever.

In Section 13, on inflammation and in-
fection in the ICU, the information regard-
ing initial volume resuscitation target and
the role of steroids in severe sepsis has been
updated. I appreciated the author’s comment
on page 817 regarding antibiotic overseuse
in the ICU, as the author stated that, “the first
rule of antibiotics is try not to use them, and
the second rule is try not to use too many of
them.”

The contents of Section 14, on nutrition
and metabolism, do not differ much from
those in the 2nd edition, except for the ad-
renal insufficiency and thyroid crisis issues.

The uses of analgesia and sedation are
well-addressed in Section 15, on critical care
neurology, where the individual dose titra-
tion and interruption of drug infusions are
stressed. Chapter 50, on disorders of men-
tation, and Chapter 51, on disorders of move-
ment, are both well-written. The common
pharmaceutical toxins are addressed in Sec-
tion 16, on toxic ingestions.

I believe that the 3rd edition is correctly
updated in terms of its content and contents
descriptions, compared with the 2nd edition
from 1996. The book is not superficial. The
author carefully surveys the important fields
of critical care. I did not find a typograph-
ical error during my review. It is amazing to
me that a single author performed such an
extensive review of the advances in each field
and rewrote most of the 2nd edition. I
enjoyed reading The ICU Book. The 3rd
edition provides a valuable and detailed re-
view of many important critical care fields.
I recommend this text for respiratory ther-
apists, physicians under critical-care train-
ing, and for critical care nurses.

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1. Steinberg KP, Hudson LD, Goodman RB,
Hough CL, Lanken PN, Hyzy R. et al. Ef-
ficacy and safety of corticosteroids for per-
sistent acute respiratory distress syndrome.

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to the content of this book review.

Avoiding Common ICU Errors. Lisa Mar-
ucci MD, Elizabeth A Martinez MD MHS,
Elliott R Haut MD, Anthony D Slonim MD
DrPH, Jose I Suarez MD. Philadelphia:
Wolters Kluwer/Lippincott Williams &
Wilkins. 2007. Soft cover, illustrated, 896
pages, $54.95.

The 1999 Institute of Medicine report To
Err is Human: Building a Safer Health Sys-
tem1 put into words what many of us who
care for intensive care unit (ICU) patients
knew all too well. We knew that, despite the
hard work and dedication of therapists,
nurses, doctors, and many others, our pa-
tients did not reliably get interventions that
could improve their outcomes. They were
not nearly as safe in our hands as they should
have been. Many of us responded to this
challenge, dedicating ourselves to reducing
errors by working harder, reading more, at-
tending medical meetings, and sharing our
experiences at morbidity and mortality con-
ferences.

Despite our dedication and hard work, there
is little evidence that ICU care has become
safer or more reliable. In fact, both safety and
reliability may actually worsen as treatment
options become more complex.2 We learned
from the Institute of Medicine report that working
harder is not enough. What can we do to
make ICU care safer and more reliable?

Avoiding Common ICU Errors is a bold
title. The preface, written by safety advo-
cate Peter Pronovost, lays out a 3-fold ap-
proach to improving ICU safety: “We need
to expose mistakes, develop strategies to re-
duce them, and evaluate our progress.” How
well does this book reach these aims? Who
would want a copy of this text in her office
reference collection? Would the title “Com-
mon ICU Errors” better reflect its content
and value to readers?

Avoiding Common ICU Errors is or-
ganized into 14 chapters: 13 thematic, the
last “miscellaneous.” Chapter subjects in-
clude medications, devices/tubes/catheters/
drains/procedures, ventilators/airway/
tubation/extubation, infectious disease,
shock/fluuid/electrolytes, neurologic, labora-
tory, nutrition, renal, blood, imaging and
tests, pregnancy, and miscellaneous. Each
chapter contains a succinct 1–3-page review
that includes relevant references that address
specific issues that may lead to harm of
ICU patients. For example, the first chapter,
on medications, includes reviews of 57 top-
ics, including “Know the characteristics of
the narcotics you prescribe,” “Do not use
succinylcholine in patients with burns, pa-
ralysis, or other high-potassium states,” “Re-
member that malignant hyperthermia may
not have hyperthermia.” In total, the text
includes reviews of 317 errors considered
“common” by the 164 contributing authors.

The reviews are concise and well writ-
ten; some contain a table or figure, and each
includes 3–5 references. Most of the reviews
are thorough, given their focused intent. The
text itself is pleasantly readable and includes
an index, although there is no separate in-
dex for tables or figures.

Do the reviews address truly common
ICU errors? I would have expected more
focused attention on nosocomial infections,
including interventions designed to prevent
device-related bloodstream infections and
ventilator-associated pneumonia (VAP). Is-
suues of device-related bloodstream infec-
tions are superficially addressed in the sec-
tion “Be meticulous in the technique when
inserting and caring for central venous ac-
cess catheters in the ICU, to lower the in-
cidence of infection.” The use of chlorhexi-
dine as the preferred skin antiseptic is
reviewed, although its described use
(“should be applied via a concentrically
larger circular motion for at least 20 sec-
onds and should be allowed to dry without
blotting or fanning”) does not match current
manufacturer recommendations, which call
for 30 seconds of back-and-forth scrub
strokes on a dry site or 2 minutes of back-
and-forth strokes on a moist site, followed
by 30-second and 2-minute drying times, without blotting, respectively. Also not addressed are details of post-insertion care, including minimizing blood-drawing through central lines, assessing need daily, and removing the device as soon as possible. Further, there is no mention that peripherally inserted central lines, when used in the ICU, have infection rates similar to conventionally inserted devices and should be managed with the same vigilance.

VAP, which is the most serious nosocomial ICU infection and is reviewed in the section “Keep the head of the bed elevated at least 30 degrees if no contraindications exist,” should get specific focus because there is good evidence that VAP rates can be reduced. One study demonstrated that by “bundling” head-of-bed elevation along with daily interruption of sedation, assessment of readiness to wean, and prophylaxis against deep venous thrombosis and stress ulcers, VAP incidence may be reduced by 44%. If that observation is correct, the implication is that ventilated ICU patients who do not routinely receive these therapies will continue to experience potentially preventable VAP.

One other intervention that did not get specific focus was the need to limit tidal volume when managing mechanical ventilation for patients with acute lung injury and acute respiratory distress syndrome (ARDS). The issue is addressed along with the ARDS Network results in the review “Know how to measure plateau pressure when using pressure-regulated volume control ventilation mode and know what to do with the value once it is obtained.” Given the importance of this simple, effective, inexpensive intervention, and knowledge that not all patients who qualify for the therapy actually receive it, I would have expected a specific topic review.

Though one could quibble with the topics included and omitted, I have a larger issue of concern. If the text’s stated aim is to avoid common ICU errors, how can I actually use this book to avoid common errors and improve safety in my ICU? It appears that the authors expect me to remember the more than 317 common errors and simply stop making them. For example, the first 10 topics encourage me to “monitor,” “know,” “consider” (twice), “strongly consider,” “avoid,” “use,” “specifically query,” “do not use,” and, finally, “remember.” Most of the other entries have similar exhortations. How could I or any other clinician possibly remember all the important dos and don’ts in this book? My perspective is that no human memory, most certainly not mine, has the capability to reliably recall the important contents of this book. How then can this book contribute to avoiding common ICU errors?

I believe the answer is found in Pronovost’s preface, where he states that “we need to expose mistakes” to make progress towards reducing harm. This text admirably takes a step toward that aim with its 317 topical entries and mention of other errors included within each review. What the text does not do is provide any framework, other than an individual clinician’s memory, to develop strategies to prevent them. For example, one strategy that improves the use of maximum barrier precautions during insertion of central lines is to assemble all appropriate supplies into a kit, thereby removing system barriers (eg, providers can’t locate the right supplies) and making it much likelier that providers will safely perform these procedures. I believe the text would be greatly enhanced by including references to ICU system design and improvement strategies, perhaps by including a chapter devoted solely to that topic.

For whom is this book useful? I recommend this book to ICU physicians, nurses, and respiratory therapists, particularly those searching for topics to focus ICU system improvement efforts. As Pronovost noted, reducing harm in the ICU begins by “exposing mistakes,” and this text’s authors should be commended for collecting and reviewing “Common ICU Errors,” which perhaps could be a more representative book title. “A journey of a thousand miles begins with the first step,” and this text does take an important first step in the journey to reduce harm and improve safety in our ICUs.

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REFERENCES