dental devices used in obstructive sleep apnea. The content is also consistent with the authors’ stated goal of emphasizing common clinical problems, given that there are a noticeable number of questions on chronic obstructive pulmonary disease, infectious pneumonias, and pulmonary malignancies. One of the major challenges in organizing a book like this is to strike an appropriate balance between the common problems that all pulmonologists must master and the “fascinomas” and clinical rarities that make medicine so unpredictable and stimulating. Q&A

Color Review of Respiratory Medicine

does a nice job of achieving that balance. The backbone of “bread and butter” cases is complemented by questions and illustrations of rare cases that recapture the reader’s interest just when the questions seem to get commonplace.

Despite having a broad range of questions and concise, well-written answers, this book has limitations. The biggest is that it is not comprehensive enough. The topics that are addressed are described to an appropriate level of detail, but this level is far less than one would need to understand a particular disease or problem well, so this book can only be used as a supplement to other more comprehensive texts. To be fair, I think the authors never intended this book to be a comprehensive review. From a practical perspective, however, most health-care professionals are very busy and overwhelmed with the growing list of textbooks, journal articles, and online resources that they do not have time to read. Where, then, does Q&A

Color Review of Respiratory Medicine fit into all of this? Is it yet another textbook one should add to the pile of things to read if one had the time? I think one of the advantages of this book is that it can be fit into the small openings of a busy professional’s schedule. The book is compact and light. Each question is independent of the next. The answers do not take long to read. The illustrations are fun and interesting. Thus, I found it a nice book to have on the bus, while waiting for a colleague, or during a lunch break. Would I use this book to engage in a detailed review of pulmonary medicine? Probably not. Do I find it useful as a fun, educational text I can use during the small breaks that thankfully present themselves during the day? Absolutely.

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Infection control and prevention of antibiotic resistance are important issues in the intensive care unit (ICU). Among the various health-care settings, ICU organisms are on top of the resistance pyramid. Considering the exodus of patients from the ICU to other health-care settings, including nursing homes, chronic-care facilities, and the community, the ramifications of spread of antibiotic resistance are tremendous. The spread of antibiotic resistance is like a tidal wave that has its center in the ICU, and the waves are spreading toward the locales to which patients are transferred. The effect of antibiotic resistance is at several tiers, such as the individual, ICU, hospital, other health-care settings, and the community. Everyone who steps into the ICU should be aware of day-to-day measures needed to prevent spread of infection, especially with resistant organisms.

This book is a comprehensive update on infection control and antibiotic resistance in the ICU setting, to help answer some of the outstanding questions and to propose guidelines. Briefly, it defines the extent of the problem of infection control and antibiotic resistance. It establishes clear definitions of the various terms used (eg, carriage and colonization) and describes the antimicrobial agents available. It goes on to discuss infection control, specific infections in ICU subpopulations, and unique considerations in ICU patients.

Section 1 defines the basics of infection control. The first chapter is a good introduction, clarifying commonly used words. It clearly delineates the difference between terms such as carriage, colonization, and overgrowth, some of which can be confused with each other and are used interchangeably. The next chapter focuses on carriage, reviews normal defense mechanisms, and distinguishes between normal and abnormal flora. The third chapter further expands on these concepts and clarifies the distinction between colonization and infection, specifically in the internal organs, such as the bladder and the respiratory tract, with examples and detailed mechanisms. Normal defense mechanisms and control measures are also reviewed. The fourth chapter discusses (and provides detailed tables on) normal and abnormal hospital flora and the impact of antibiotic resistance.

The chapter on classification of ICU infections provides a different way of looking at this issue. The chapter focuses on the sources of the micro-organisms. This approach deviates from the conventional way of defining infections—community-acquired versus ICU-acquired. The authors of this chapter preferred to classify them as either primary endogenous infections (from flora imported into the ICU by the patient on admission [early infection]), secondary endogenous infections (from flora acquired in the ICU [later infection]), or exogenous infections (abnormal flora, such as Acinetobacter, that cause direct infection without prior colonization). This is the proposed explanation for the limitation of existing measures, such as hand-washing and isolation, as they do not control primary endogenous and secondary endogenous infection (85% of the infections in the ICU). This approach to classifying infections necessitates addressing the carrier state by using a program consisting of surveillance cultures and selective digestive decontamination (SDD). This approach is different from conventional wisdom, is not widely practiced in the United States, and is not part of the common guidelines, such as the American Thoracic Society/Infectious Disease Society of America (ATS/IDSA) guidelines for nosocomial pneumonia. The final chapter in this section, on gut microbiology and surveillance samples, defines techniques and qualitative and quantitative details to distinguish the carrier state, overgrowth, and their clinical importance. The authors make an argument for surveillance cultures in addition to infection-related cultures, and they suggest control measures based on a surveillance culture strategy.

Section 2 is a detailed review of existing antibiotics and antifungal agents, including subclasses. This section comprehensively covers available oral and parenteral antibiotics, with details of their antimicrobial spectrum. This is well categorized and subclass-
sified, with differences between subgroups highlighted. The chapter concludes with an interesting and clinically relevant discussion of concentration-dependent versus time-depen
dent antibiotic bactericidal activity. The antifungals are reviewed, along with differ
ces between various agents and newer drugs in development. This section conclud-
es with a chapter on enteric antibiotics, with a new addendum in this edition on en
teral nonabsorbable antibiotics, which is the basis of SDD. A rationale is made for
SDD in keeping antibiotic resistance in check and prolonging the effect of the cur-
rently available antimicrobials. Here, hand-
washing is proposed as an ancillary mea-
sure to SDD; in contrast, hand-washing is
one of the primary strategies in most infec
tion-control programs.

Section 3 targets various aspects of in-
fected control in the ICU: it presents an
evidence-based, comprehensive approach with respect to invasive devices such as pe-
ripheral catheters, central venous catheters,
ventilator-related equipment, and urinary catheters. The authors make the point that
the widely used antiseptic-coated central ve-
nous catheters reduce catheter contamination but do not reduce catheter-related in-
fected. A device-management program is
recommended as an infection-control mea-
sure. The chapter on ICU antibiotic policies
focuses on balancing efficacy, safety, and
costs to achieve good outcomes. It outlines
a process that is difficult to plan, imple-
ment, and monitor, especially with the
widely prevalent “open ICU” structure.

Advancements in molecular techniques
are described in the next chapter, which an-
alyzes 57 infection outbreaks. These out-
breaks were usually polyclonal. The molec-
ular techniques used were more effective in
pinning down external infection sources, since internal sources could not be easily
identified without surveillance cultures. This
is a rapidly advancing field, with many ex-
citing developments. This section concludes
with an in-depth discussion of SDD as an
important limiter of infection, resistance, and
mortality in the ICU.

Section 4 gives clinical descriptions of
ICU infections, including ventilator-asso-
ciated pneumonia (VAP), bloodstream in-
fecteds, pleuropneumoneal infections,
and hospital-acquired pneumonia. Other topics include pediatric and neonatal ICU infections; immunocompro-
mised patients, such as transplantation pa-
tients and patients with acquired immune
deficiency syndrome; and clinical viro-
logy in the ICU. Broadly speaking, these
are updated and exhaustive reviews of these topics, with treatment guidelines for
these infections. Two chapters stand out:
the one on “immediate adequate antibiot-
ics” as a major factor impacting on mor-
bidity and mortality, and the one on “ther-
apy of infection.” Both these chapters
present data to justify a comprehensive
approach of surveillance cultures, early
systemic antibiotics (to eradicate abnor-
al organisms present in patients on ICU
admission), SDD, device-management,
and other infection-control measures to
minimize infection, optimize outcomes,
and minimize the risk of increasing anti-
biotic resistance.

Section 5 is a potpourri; it describes sep-
sis definitions, metabolic and nutritional as-
pects of sepsis, and clinical aspects of stress-
ulcer prophylaxis. The chapter on antibiotic resistance builds on the data presented ex-
tensively earlier. It points out the limita-
tions of existing strategies referred to by the
authors as the “traditional approach”—
namely antibiotic restriction, hand-washing,
and isolation. The authors address the overall
issue of antibiotic resistance with a mul-
ti-faceted strategy of surveillance cultures,
early systemic antibiotics, SDD, and hygiene
practices. They present 5-year data from a
pediatric ICU that used this strategy and
eradicated the abnormal resistant gut organ-
isms, with good outcomes. The pharmacist’s
role in SDD is defined in detail. The book
concludes with an evidence-based section
on ICU therapies.

In summary, this book is a very good
review of infection control and ICU in-
fecteds in general, covering adult and pe-
diatric populations and focusing on spe-
cific subsets such as VAP, acquired immune deficiency syndrome, and tranz-
plantation. To the authors’ credit, evi-
dence-based practices are extensively pre-
sented and reviewed. The index is well-
designed, the sections are well defined,
and specific information is presented. The
context is well written, and for a topic that
has many technical terms and descriptions, it makes for relatively easy reading. There
is some redundancy; several chapters in-
trude and reflect on the different types of in-
fecteds: primary endogenous, sec-
ondary endogenous, and exogenous. The
same is true for descriptions of terms such
as the carrier state and overgrowth. This
book is an all-inclusive review, so it is
fairly voluminous, and it goes beyond the
title’s description. This is partly because the authors describe ICU infections in de-
tail and touch on a substantial number of
related ICU topics. System-specific dis-
eseas such as VAP and abdominal infec-
tions are described at great length; though
this may be relevant from an overall in-
fected-control perspective, it makes for
intense reading.

In addition, from the perspective of ther-
apeutic infection control, the data presented
here lean heavily toward SDD as the rec-
ommended antibiotic-resistance-prevention
and infection-control method. This is an eye-
 opener, since SDD is not a common prac-
tice in ICUs in the United States. The data
presented for commonly followed ap-
proaches, such as antibiotic restriction
and hand-washing, highlight their limitation to
control short-term and long-term antibiotic
resistance. However, at this point it appears
that SDD can increase the incidence of me-
thicillin-resistant Staphylococcus aureus
(MRSA), as MRSA coverage is usually not
included in SDD protocols, and SDD is not
useful in ICUs that have a high level of
endemic MRSA. In the 2005 ATS/IDSA nosoco-
mial pneumonia guidelines, SDD is
not recommended for routine use, especially
in patients who may be colonized with mul-
tiple-drug-resistant pathogens such as
MRSA. The final decision on the imple-
mentation of SDD remains ICU-specific.

This book is directed mainly toward per-
sonnel involved in infection control and ICU
care, such as physicians, nurses, and phar-
macists. It contains abundant useful infor-
mation for ICU workers interested in build-
ing policies and protocols to control the
epidemic of antibiotic resistance, maintain
the efficacy of available antibiotics, and pro-
mote good outcomes. Respiratory therapists
may find interesting the chapters on VAP,
device control, tubing, and humidifiers. The
entire concept of SDD is well explained and
may be of interest to all involved in ICU
care, including nurses, therapists, infection
control personnel, and physicians.

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Intensive care units have the highest prevalence of nosocomial infections in hospitals. Good nutritional support is essential to prevent nosocomial infections. However, malnutrition is a common and important problem in intensive care units, especially in developing countries. For the prevention of malnutrition, a team approach is needed. Immunonutrition is nutrition that affects the immune response in various ways and increases the strength of the immune system. Immunonutrition in the ICU is nutrition that affects the immune response in various ways and increases the strength of the immune system. Infection control precautions. All patients in the ICU are placed on ICU standard isolation precautions (safety measures). These precautions help protect your loved one. For more resources, visit www.mskcc.org/pe to search our virtual library. The Intensive Care Unit (ICU) Visitors' Guide - Last updated on February 5, 2021. All rights owned and reserved by Memorial Sloan Kettering Cancer Center. Navigate This Article. About the ICU. The Guidelines in Intensive Care Development and Evaluation (GUIDE) group provided methodological support throughout the guideline development process. Management of Conflict of Interests. All panel members completed a conflict of interests (COI) form prior to joining the guideline panel [3, 4]. We used the GRADEpro guideline development tool (GDT) online software (http://gdt.guidelinedevelopment.org) to administer WHO COI disclosure forms to participating panel members. The risk of patient-to-patient transmission in the ICU is currently unknown, therefore, adherence to infection control precautions is paramount. Healthcare workers should follow the infection control policies and procedures already in place at their healthcare institutions. Molecular Epidemiology of Pseudomonas aeruginosa in the Intensive Care Units - A Review. D.S. Blanc, P. Francioli, and G. Zanetti. Hospital Preventive Medicine, University Hospital of Lausanne, Switzerland. Reasons for this include the compliance of health care workers to infection control measures, the contamination of the environment, and probably also the biology of the pathogen (intrinsic fitness factors). As P. aeruginosa is ubiquitous in the environment and colonizes up to 15% of hospitalized patients, eradication of the reservoir is difficult, if not impossible. Therefore, efforts should primarily focus on reinforcement of infection control measures to limit its transmission. Keywords: Pseudomonas aeruginosa, molecular epidemiology, intensive care unit. INTRODUCTION.