and systemic blood of SDD-treated animals, along with a lower incidence of bacterial translocation and improved survival.

Potential downsides of SDD include the fostering of resistant organisms and added ICU cost. Some studies have documented a change in resistance patterns and in the spectrum of nosocomial bacteria in ICUs that use SDD. Although some studies have shown a reduction in cost with the reduced need for systemic antibiotics, others have found an increase in cost due to microbiologic surveillance and the actual cost of SDD.

Accordingly, given the lessons we’ve learned thus far from the sum of these studies, a healthy skepticism is in order as we investigate the cause and effect relationship among gut bacterial overgrowth, gut endotoxin, bacterial translocation, lung injury, MODS, and mortality.

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What’s the Rush? Trust the Process

It is not surprising that the recent controversy surrounding the value of the Swan-Ganz catheter has additionally prompted international remarks. Further commentaries suggest that this balloon flotation catheter may be barely treading water, and that it may be time to pull it, as its swan song is chanted.
In search of the truth concerning swans and their
death, we are reminded of birth. In Greek mythology,
Leda was a mortal who, after being visited by Zeus in
the guise of a swan, gave birth to an egg. Out of this egg
sprang the twins Castor and Pollux. These two went on
to perform great deeds and heroic acts. Critical care
medicine is such an egg; its inception just 25 years ago
spawned both sophisticated and invasive technologies
to manage seriously ill patients. These technologies
associated with critical care medicine appear to im-
prove the ability to keep people alive in intensive care
settings, as well as provide for a greater understanding
of the nature of life-threatening illness.1-5

The Swan-Ganz catheter has been one of the major
technological advances to come out of this newly
hatched egg, revealing the complexity of human ill-
ness.6 The enthusiasm to utilize the catheter, and the
desire to maximize management of the sickest patients,
probably did result in the search for answers before we
had questions, with the genie prematurely summoned
from the bottle.7 Accordingly, concerned individuals
have been vocal during these fragile neophyte years of
critical care medicine’s evolution.8-11

The history of medicine is rife with examples of
resistance to unproven but clinically relevant observa-
tions and technologic advances.12 The brilliant proof by
William Harvey (1578-1657) of the continuous circula-
tion of the blood within a contained system was the
17th century’s most significant achievement in physiol-
ogy and medicine.13 Although Harvey’s contributions
had enormous importance to anatomy and physiology,
their impact on the practice of medicine was limited.
His anatomical dissections, physiologic observations of
humans, and direct experiments on animals were at-
tacked and met with criticism. It was not until the
logical extension of the information obtained from
Harvey’s work, namely the intravenous administration
of drugs, that Harvey’s followers and critics acknowl-
dged the significance of his original observations.
Today, Harvey’s contribution is one of the most impor-
tant in the history of medicine.

Swans are known to sing as they are dying. We
believe that what is being witnessed today is not the
death of the Swan-Ganz catheter; instead, hatching
from it are new techniques and patient assessment
methodologies.14-18 From the single egg, the Swan-
Ganz catheter has been part of the evolving field of
critical care medicine. The emergence and develop-
ment of new technology is part of the process, and it
must be trusted.

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Mr. Jack Emerson—A Matter of Life and Breath

A tool is but an extension of a man’s hand,
and a machine is but a complex tool. And he that
invents a machine augments the power of man
and the well being of mankind.

—Henry Ward Beecher

Exemplary life-support devices such as the Emer-
son Iron Lung, Models 3-PV and IMV Ventilators,
Water Column PEEP (positive end-expiratory
pressure) Valve, and Pleural Suction Pump have

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