



**Respiratory Care  
Building the Future**

Kansas Respiratory Care Society  
37<sup>th</sup> Annual Education Seminar

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**Respiratory Care – Catch the Wave!**



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## Disclosure

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This presentation is sponsored  
by  
Hill-Rom Medical Corporation



- 537-bed, acute care hospital
- Located in Jackson, Mississippi
- Selected as “One of the Five Best Places to Work in Mississippi – Mega – Large Business” by the *Mississippi Business Journal*
- *HealthGrades* recently released findings ranking St. Dominic #1 in Cardiac and Stroke Services in Mississippi last 5 years
- #1 Hospital in MS – *US News and World Report (2011, 2012)*
- Over 250 cardiac arrests/year (2012)
- Code team, led by Respiratory Therapists, responds to all cardiac arrests within the hospital
- In the initial release of HCAHPS data, St. Dominic was the 5<sup>th</sup> safest hospital in America in cardiac mortality

## Objectives

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- Discuss the importance of balancing the challenges we’re currently facing in health care with the responsibility to deliver exceptional care to our patients and their families
- Discuss the role of evidence-based practice in delivering desirable patient outcomes
- Discuss the mandate for professional engagement and it’s relationship to navigating this labyrinth in which we find ourselves

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We are called to provide  
compassionate, quality care . . .

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Our patients come to us in their most  
vulnerable, fragile conditions.  
We're called to meet them where they  
are – physically, emotionally,  
psychologically and spiritually. . .

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Regardless of the competing  
challenges out there, that's our  
responsibility. . .

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Did we sign up for something this  
hard?  
Chances are, we didn't. . .

How many of you have experienced substantial change in what and how you do your jobs in the past few years?

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- Has it been easy?
- How many of you feel like your job is easier than it's ever been before?
- How many of you have recently had some second thoughts about this arena they call healthcare?

If this isn't what you signed up for, are you going to continue to settle or do something about it?

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It's time to catch the wave or run the risk of being swept away by the under currents!

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In the midst of these challenges,  
we have to remember that the  
most important part of our job is  
still taking care of patients!

This isn't a time for shrinking  
violets!

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This is a time to demonstrate the  
calling and the value of the  
healthcare professional in a  
renewed and powerful way!

## How do we catch the wave?

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By delivering new techniques with new technologies (as well as some faithful staples!) in exceptional ways!

## Some of our new approaches (20 years old or newer) include . . .

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- Intermittent Percussive Ventilation (IPV)\*
- AeroEclipse Breath-Actuated Nebulizer\*
- BiPAP
- Synthetic Surfactant
- EzPAP / AccuPAP\*
- Acapella / Flutter / Quake / Coronet / Aerobika\*
- Anti-static holding chambers
- Frequencer
- High Flow Heated Humidification\*
- NAVA, APRV, PRVC, et. al. advanced modes of ventilation
- Vest Therapy \*
- MetaNeb \*
- Impedance Threshold Device\*

## A Snapshot of Today's Challenges

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- We have to cut our costs and raise our quality!
  - VBP / Pay for Performance
  - Bundled Payments
  - Penalties for recidivism (aka “frequent flyers” or frequent readmissions)
  - Healthcare reform is just getting started
  - Massive change is in our grill!

## What are the most common inpatient readmission diagnoses?

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- Heart Failure
- Diabetes
- COPD
- Pneumonia
- Respiratory Infection
  
- For the ED - Asthma

Over the next few years, Hospitals will receive ZERO reimbursement if a patient returns within 30 days of discharge, regardless of their return diagnosis!

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Within the next 10 years, that 30-day cycle is projected to be extended to 90 days!

We ve gotta get in the game, folks!

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Remember, if you re not at the table, you re on the menu!

## Why is it so important?

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- Chronic disease is currently stripping our current healthcare system
- 20% of the population is currently consuming approximately 75% of the healthcare dollars

So, what?

“Ken, it’s really hard to stay energized when no one appreciates what we do anyway!”

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Two key considerations that keep me grounded:

Most importantly for me:

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- “And whatever you do, do it heartily, as to the Lord and not to men, knowing that from the Lord you will receive the reward of the inheritance; for you serve the Lord Christ.”

- Colossians 3:23-24

## And another. . .

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- Our hospital's and our profession's survival has rarely, if ever depended more on us doing our part for our very survival.
- That's really not a stretch!
- There's not going to be a place for therapists who "attend work" and act like treatment jockeys!

As you can see, it's really important for the Respiratory Therapist to try and drive quality health care. . .

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What are our keys to success?

## Keys to Keep Us at the Table

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- Utilization of evidence-based protocols
- Determine if therapy is indicated
- If so, determine the appropriate mode
- Take an objective look at frequency
- Determine when outcomes are met
- Insure our patients/families are prepared for discharge
- If ventilation is required, lead the management and liberation process

With Value-Based Purchasing, those hospitals delivering the highest quality, most cost-efficient care will be rewarded financially for their efforts -

Those who perform less than the upper percentiles will be penalized

Catching the wave means  
Respiratory Therapists take  
advantage of the unique  
opportunities to impact these  
processes by being active, engaged  
professionals versus treatment  
providers!

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IPV

The St. Dominic Experience

## EzPAP / AccuPAP

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- Advantages:
  - Effective at achieving hyperinflation
  - Has applicable CPT code; when delivered with nebulizer therapy, may be helpful for productivity and some revenues depending on payor source
  - Allows ready utilization of nebulization in-line
  - Well-tolerated by most patients

## OPEP Device

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- Advantages:
  - Delivers oscillatory effect to effectively mobilize secretions
  - Designed for continued patient use post discharge; can be an effective tool to help decrease or avoid readmissions
  - Simple to clean and to reassemble
  - Loses only approximately 6% of aerosol when used concomitantly versus earlier options losing closer to 60%
  - One unit for high flow and low flow
  - Unit is not position dependent to yield higher patient compliance

## High-Flow Heated Humidification

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- Attractive alternative for NRBM, Venti-masks, etc.
- High flows have offered additional option for patients who do not readily tolerate NIV (less confinement anxiety)
- May be used as an effective wetting agent for patients with tenacious secretions
- Extremely useful in neonatal and adult settings for avoiding intubation or CPAP

## Vest Therapy

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- Offers consistent action/mechanical response versus manual CPT
- Tolerated much better by patients than hand-clapping
- Easy on/off application
- Permanent or disposable wraps available
- Offers ability to adjust amplitude as well as the intensity of action

## MetaNeb

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- Pick and choose which of the therapeutic options you deem most appropriate – PEP, IPV or Nebulizer Therapy (any or all)
- Of our patients studied and tracked since July, over 80% are showing significant CXR improvement within 48 hours

## “Hospital to Home”

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These are just a few of the tools  
which equip us to catch the wave!

Here are some examples of other strategies  
that have worked well for us . . .

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- Evidence-based ventilator liberation and implementation of the VAP bundle
- Conversion to breath-actuated nebs
- Systems-based resuscitation approach

## Evidence-Based Ventilatory Weaning

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- **We saved 5.39 days on vent on average for 7,232 patients**
- **Saved nearly \$214 million from hitting healthcare system**

## IHI Ventilator Bundle

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Avoided a minimum of 64 VAP s at \$80,000 per case in expense savings

Equates to \$5,120,000 in expense reduction

Expense savings divided by operating margin yields and impact of over \$170 million!

## Conversion to Breath-Actuated Nebulizers

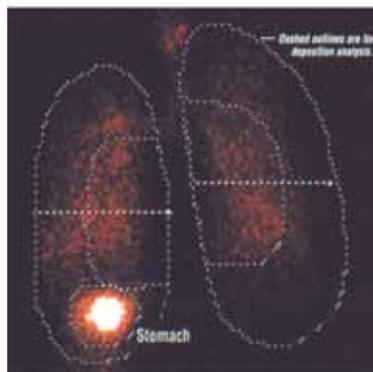
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- Design delivers 3-4 times greater particle deposition
- Avoid stacking therapies – facilitates one-on-one care
- Reduces LOS 8-9%
- Enables you to “treat ‘em and street ‘em” in the ED for breaking asthmatics
- Saved nearly \$5 million in patient charges over three year period by reducing LOS
- Saved nearly \$2 million in expenses for taking care of them
- Expense reduction results in required revenue reduction of over \$63 million!

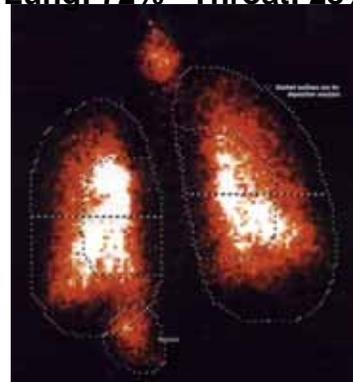
*Design absolutely makes a difference  
in delivered dose!*

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**Conventional**  
Lung: 32% Throat: 68%



**Breath Actuated**  
Lung: 72% Throat: 28%



J Aerosol Med 2001;14(3):421

## Don't forget about New CPR and the Impedance Threshold Device!

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After our latest study, we've found:

- 77% increase in Survival to Discharge rates vs old CPR
- After 1,300 patients, we have successfully discharged over 160 more patients alive than the average hospital in America
- Approximately 80% of whom are neurologically intact
- Fed the cath lab over \$3.9 million in additional business

"Implementation of the 2005 AHA Guidelines Improves In-Hospital Cardiac Arrest Survival Rates in a Community Hospital: A 5-Year Case Series"

Thigpen, Simmons, et. Al

CIRCULATION, October, 2010

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- Study looked at 681 IHCA patients over 5 years
- ROSC rate was 60.9%
- HD rate was 28%
- CPC Score of 1 or 2 was 74%
- Greatest success seen in those patients presenting with PEA

“Breaking the 30% Survival Rate Window: Impact of the 2005 and 2010 American Heart Association Guidelines on In-Hospital Cardiac Arrest Survival and Favorable Neurological Outcomes”

- 262 unique patients using 2010 guidelines
- ROSC: 76.7%
- HD: 30.15%
- CPC Score 1 or 2: 75%

Thigpen et al – Circulation 2013

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This is our time!

We can not only catch the wave but I believe  
ride it successfully when we step up to the  
plate!

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I signed up to make a difference in the lives of the patients we  
see!

It's about being on a mission, committed to giving our best!

If you didn't sign up for the "warm and fuzzy", hopefully you  
better understand why we have to give it our best – our patients  
lives, our jobs, possibly the existence of our profession depend  
on it!

We've gotta get this!

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- We have to think differently
- We have to act more responsibly
- We have to strap on our professional  
accountability
- We have to remember why we're in  
healthcare – it's to make an impact on  
people's lives!
- We've gotta get in the game!

## These strategies have worked pretty well . . .

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- These efforts have had a combined impact of over \$400 million over past 7 years
- A portion in cost savings
- A portion in cost avoidance
- A portion in new revenues

## Again, this is our time!

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- Catch the wave!
- The responsibility that accompanies our calling does not change – regardless of how challenging things become . . .

## A little “perspective” . . .

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“Live simply, expect little, give much, Trust God.”

- Author Unknown

“God chooses what we go through. We choose how we go through it.”

- Author Unknown

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It's not what you look at that matters . . .

It's what you see

-Henry David Thoreau

## And one final thought . . .

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- Life isn't about how to survive the storm;
- It's about how to dance in the rain!

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