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Advances in
pulmonary management of
the critically ill infant

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Inside this Issue

Customers Perspective on Jet Use

Jet Use Soars

For the third straight year use of the Life Pulse High-Frequency Jet Ventilator has increased. We attributed increases in 1996 and 1997 to the introduction and utilization of the LifePort ET tube adapter and the elimination of re-intubation. While these early increases were encouraging, the increase in 1998 was unprecedented. Jet use increased 25% in one year!

What factors contributed to this dramatic increase? Was this a latent effect of the LifePort adapter or was it something else? To answer this question we decided to sample a cross-section of customers who's use increased 50-250%. We talked to physicians and respiratory therapists at each hospital and asked them the same four questions. Here is what they had to say.

Question #1

What factors are responsible for the increase in Jet use at your hospital?

"In addition to patients with airleak, we are treating patients with PPHN and respiratory failure that we previously transported to other facilities." *Sharon Kiernan, MD, Holy Cross Hospital, Silver Spring, MD*

"It seems like there's been an increase in the number of small peemies. The neonatologists prefer using the Jet over the oscillator for these tiny babies ever since the LifePort adapter came out." *Cynthia Coleman, RRT, St. Peter's University Hospital, New Brunswick, NJ*

"The LifePort adapter has facilitated early intervention with the Jet. As a result we rarely see PIE or have the need to transport patients for ECMO." *J.C. Roig, MD, St. Mary's Hospital, West Palm Beach, FL*

"If I could only have one ventilator in my unit it would be the Jet. It offers greater versatility than any other ventilator."

***J.C. Roig, MD, St. Mary's Hospital
West Palm Beach, FL***

"Clinicians here are more familiar with the Jet and its capabilities. We have come to the realization that patients do better when we get them started on the Jet sooner rather than later. Easy access to additional Jet ventilators via the rental program has also had a positive impact on utilization." *Phil Webber, RRT, Holy Cross Hospital, Silver Spring, MD*

"We're seeing more sick babies and tiny peemies with airleaks. We use the Jet to

treat these patients when they don't respond to conventional and oscillatory ventilation." *Melissa Bybee, RRT, Memorial Hospital, South Bend, IN*

"Our acuity has increased. We're seeing more small peemies and an increase in airleaks in that group. We treat all our patients with PIE or airleak with the Jet." *William Engle, MD, Riley Children's Hospital, Indianapolis, IN*

"The LifePort adapter really got us going. We use the Jet

for all our rescues. It does a better job at rescue than the oscillator." *Mike Ingram, RRT, Cox Health - South, Springfield, MO*

"We have reached a consensus in our group, any patient with PIE or airleaks goes on the Jet. That, in conjunction with the fact that we expanded our NICU to 65 beds probably explains our increase in use." *Barbara Quissell, MD, Presbyterian St. Luke's Medical Center, Denver, CO*

Question #2

What criteria do you use for deciding which patients go on the Jet?

"We try to get small peemies on early and all patients who fail conventional ventilation go on the Jet." *J.C. Roig, MD, St. Mary's Hospital, West Palm Beach, FL*

"The primary criteria is airleak but we also use the Jet to rescue patients who fail HFOV." *Janelle Franklin, RRT, Riley Children's Hospital, Indianapolis, IN*

"If the MAP gets to 10 cm H₂O or higher on conventional, and all infants with PIE or other airleaks." *Robert White, MD, Memorial Hospital, South Bend, IN*

"Any infant with airleak and patients who fail CMV or HFOV." *Mike Ingram, RRT, Cox Health - South, Springfield, MO*

"When the conventional PIP is in the mid to upper 20's and the FiO₂ is 60% or greater we start thinking Jet." *Phil Webber, RRT, Holy Cross Hospital, Silver Spring, MD*

"We put patients on the Jet for PIE; we try to get them on early. Otherwise, we use the Jet primarily for rescue." *Thomas Heygi, MD, St. Peter's University Hospital, New Brunswick, NJ*

"If we are on a rates of 60 bpm and PIP 24-26 cm H₂O and can't wean in 1-2 hours we go to the Jet." *Terry Kenniston, RRT, St. Mary's Hospital, West Palm Beach, FL*

Question #3

What is the most important thing you would tell clinicians who don't use the Jet?

"The Jet works differently than the oscillator. Often infants respond to the Jet that don't respond to HFOV."

Janelle Franklin, RRT, Riley Children's Hospital, Indianapolis, IN

"It works! The Jet is an effective tool when the right strategies are employed. Training staff to use it is easy once they understand basic high-frequency concepts." *Sharon Kiernan, MD, Holy Cross Hospital, Silver Spring, MD*

"The Jet is effective for a wide variety of patients because you can custom tailor the settings. It offers the greatest therapeutic flexibility." *Terry Kenniston, RRT, St. Mary's Hospital, West Palm Beach, FL*

"The Jet may be a little more difficult to learn, but it's more versatile than the oscillator. I feel like I can fine tune it better." *Barbara Quissell, MD, Presbyterian St. Luke's Medical Center, Denver, CO*

"If I could only have one ventilator in my unit it would be the Jet. It offers greater versatility than any other ventilator." *J.C. Roig, MD, St. Mary's Hospital, West Palm Beach, FL*

"Why not? The Jet is easy to use and it's great for small peemies. I've used the Jet and the oscillator, and I think you can fine tune the Jet better." *Phil Webber, RRT, Holy Cross Hospital, Silver Spring, MD*

"The Jet is unique. It delivers breaths in a way that is different than any other ventilator. It gives us one more tool to take care of our patients." *Doug Swanton, RRT, Presbyterian St. Luke's Medical Center, Denver, CO*

Question #4

Do you have any other comments you would like to make about the Life Pulse or Bunnell?

"Your customer service is great, always very responsive." *Mike Ingram, RRT, Cox Health - South, Springfield, MO*

"We're happy with both. If more clinicians understood the Jet, more would use it." *J.C. Roig, MD, St. Mary's Hospital, West Palm Beach, FL*

"Bunnell is very responsive. Whenever we call with a request someone gets back to us right away. Bigger isn't always better!" *Phil Webber, RRT, Holy Cross Hospital, Silver Spring, MD*

"Your terrific to work with. You always get me the information I need or you hook me up with someone who can. It's obvious you care about patients." *Doug Swanton, RRT, Presbyterian St. Luke's Medical Center, Denver, CO*

"The staff is always helpful, and they provide great technical and clinical support." *Sharon Kiernan, MD, Holy Cross Hospital, Silver Spring, MD*

Here's what we learned from our interview:

- The Jet is the preferred tool for treating PIE and other airleaks, and it's being used earlier.
- The Jet is used to rescue patients that fail CMV and HFOV.
- The Jet is being used on more micro preemies, which has been facilitated by the 2.5 mm LifePort Adapter.
- Clinicians recognize the Jet's versatility and appreciate its therapeutic flexibility.

To all of you who are having success with the Jet, congratulations and thanks for making 1998 a fantastic year! To those of you who have a Jet that is not being used or that is under utilized, please call us. We would love to hear from you. Lectures and training can be arranged by contacting **Evan Richards, 1-800-800-4358, Ext. 37, or evan@bunl.com**