

CRITICAL CARE ALERT®

A monthly update of developments in critical care and intensive care medicine

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Effects of Adding an Acute Care Nurse Practitioner to the Neuroscience Care Team

ABSTRACT & COMMENTARY

Administrative observations that financial data for 2 A units (neuroscience ICU, neurosurgical ward) in a university-affiliated hospital were less than optimal compared with similar units in other hospitals in the health system led to the decision to add an acute care nurse practitioner (ACNP) to the management team of each unit. To determine the effect of this change, Russell and colleagues compared outcomes in 402 consecutive patients who were admitted to the 2 units in the first 6 months after this change with a random sample of 122 patients admitted to the same units during the year prior to the change. Patients in the random sample were selected to match the most common diagnostic codes (laminectomy, hydrocephalus, intracerebral hemorrhage, subarachnoid hemorrhage, brain tumor, spinal cord injury, head injury, and tracheostomy) of patients in the prospective sample.

No differences were found in age, gender, or race between the ACNP and retrospective sample. ACNP-managed patients had a shorter hospital length of stay (mean, 8 days) compared to the retrospective sample (mean, 11 days) ($P = 0.03$) and a shorter mean ICU length of stay ($P < 0.001$). The ACNP-managed group also experienced a lower rate of urinary tract infection and skin breakdown, a shorter time (days) to removal of urinary catheters, and a shorter time to mobilization (out of bed) ($P < 0.05$). No significant differences were found in the number of days on mechanical ventilation, time to tracheostomy decannulation, or days to placement after a written order for discharge.

In the first year of implementation, Russell et al estimated that patients managed in collaboration with the ACNP were hospitalized 2306 fewer days than the historical group. There was no difference in the 1-month readmission rate between groups (Russell D, et al. Effect of an outcomes-managed approach to care of neuroscience patients by acute care nurse practitioners. *Am J Crit Care.* 2002;11[4]:353-364).

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■ COMMENT BY LESLIE A. HOFFMAN, RN, PhD

Findings of this study suggest that introduction of a unit-based ACNP improved several key outcomes (time out of bed, time to urinary catheter removal, urinary tract infection, and skin breakdown), which can act to delay patient recovery and, in turn, increase hospital stay. Management by the ACNPs consisted of: 1) daily rounds on all patients, including review of laboratory and diagnostic tests; 2) morning rounds with the primary and consulting physician; 3) daily attendance on interdisciplinary rounds; 4) close monitoring of the patients' clinical status; and 5) collaboration with the house staff and attending physicians for changes in the management plan.

Russell et al attributed the improved outcomes seen in this study to closer patient monitoring and more rapid titration of the management plan due to greater availability of the ACNP. Previously, changes were likely to be delayed until after the surgical day, rounds, or teaching sessions. This care delivery model takes advantage of the same efficiency that is possible when daily wean-

ing protocols are implemented by the respiratory therapist or the bedside nurse. Because ACNPs are unit-based and do not have the added responsibilities of academic training, they have more time to provide consultation to patients, families, nursing staff, and other health team members. They can more closely monitor patients for changes in condition and change therapy based on the results of lab and diagnostic tests immediately after they are received.

During a 12-month period, Russell et al reported that patients in the ACNP-managed group were hospitalized 2306 fewer days than patients in the historical comparison group. While this change was likely in part due to earlier discharge, it is too large a change to be due solely to this factor. It is interesting to note that seemingly small things, such as earlier mobilization, quicker removal of a Foley catheter, lower rates of urinary tract infection, and more efficient attention to changes in the management plan, might be able to produce a major decrement in hospital stay. ■

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Magnesium Sulfate for Acute Severe Asthma

ABSTRACT & COMMENTARY

Synopsis: Magnesium sulfate, 2 g given IV as a single dose in addition to inhaled beta agonists and systemic steroids, improves airflow (but not symptoms or admission rates) in patients presenting to the emergency department with acute severe asthma.

Source: Silverman RA, et al. IV magnesium sulfate in the treatment of acute severe asthma: A multicenter randomized controlled trial. *Chest*. 2002;122(2):489-497.

In a double-blind, multicenter, randomized, controlled trial, patients presenting to 8 hospital emergency departments with acute severe asthma received nebulized albuterol, IV corticosteroids, and either placebo or 2 g of magnesium sulfate intravenously as a single dose 30 minutes after arrival. Silverman and associates included adult patients with asthma (but not COPD or other chronic cardiopulmonary disease) who presented with an acute attack and had no evidence for pneumonia or other complicating condition. Only patients who were able to perform spirometry and had a forced expiratory volume in the first second of 30% or less of the predicted

value (FEV₁%) were enrolled. A decision whether to admit the patient to the hospital was made using standardized criteria 4 hours after presentation. The primary outcome variable was FEV₁% 4 hours after presentation; secondary variables included hospital admission rates, dyspnea as assessed by the Borg 10-point scale, peak expiratory flow, and changes in vital signs.

After exclusion of 6 patients inadvertently enrolled at more than one study hospital, all randomized patients (n = 248) were included using intention-to-treat analysis. At 4 hours, patients who received the dose of magnesium sulfate had slightly but significantly larger mean FEV₁% (48.2 vs 43.5; *P* = 0.045) and peak expiratory flow (272 vs 236 L/min; *P* < 0.01). When stratification according to initial FEV₁% was done, a substantially greater improvement was observed in patients with initial values 25% or less (mean difference, 9.7%; 95% CI, 4.0-15.3%; *P* = 0.001) than in those with less severe obstruction (mean difference not significant). Patients who received magnesium had significantly lower pulse rates at 4 hours than patients who received placebo, but there were no differences in other clinical variables, Borg dyspnea assessment, or hospital admission rates (32% in each group).

■ COMMENT BY DAVID J. PIERSON, MD

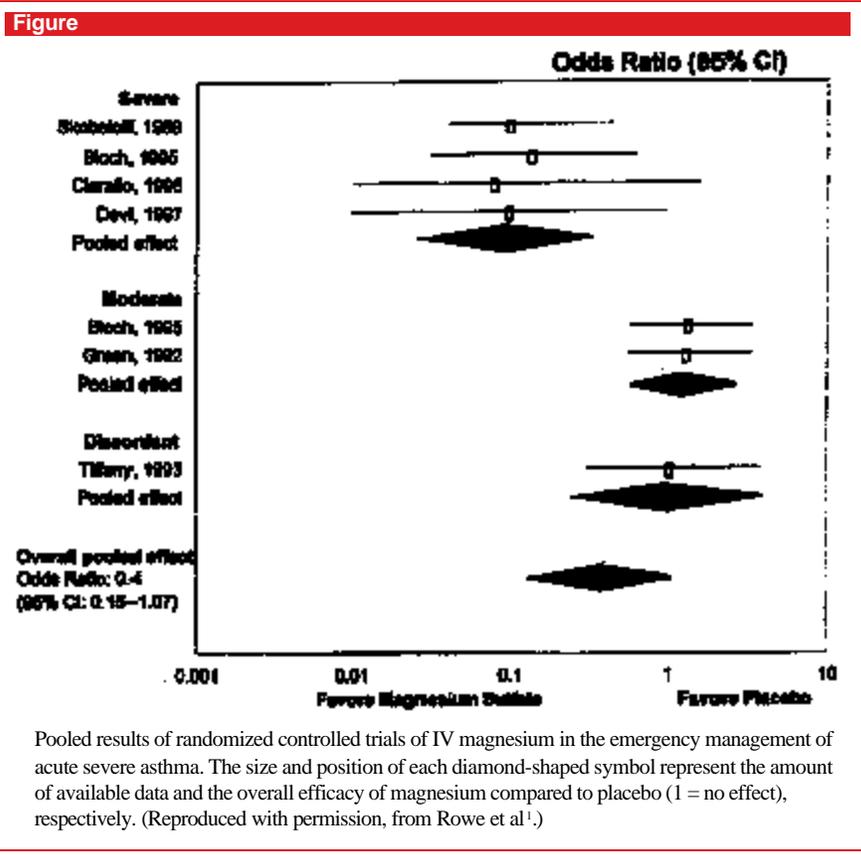
This study shows that 2 g of IV magnesium sulfate administered once as an adjunct to standard therapy improves pulmonary function in adult patients presenting to the emergency department with acute severe asthma. The effect is relatively small, observed primarily in patients with the most severe initial obstruction (FEV₁ 25% or less of predicted), and unassociated with changes in dyspnea or rates of hospitalization.

The findings of Silverman et al are consistent with an increasing body of data that adding a single dose of IV magnesium is safe and beneficial in the initial treatment of acute severe asthma. This was discussed in a recent systematic review of current data on the emergency department management of this condition by Rowe and colleagues,¹ who summarized the results of several randomized controlled trials as shown in the Figure.

Although magnesium has been

shown to have a detectable effect, beta agonists and systemic corticosteroids are the cornerstones of initial treatment in acute severe asthma. Delivery of beta agonists via nebulizer or metered-dose inhaler with spacer device appears to be similarly efficacious. Recent evidence from studies involving both children and adults indicates that the addition of ipratropium bromide to early beta agonist treatment may reduce airway obstruction and hospital admissions, especially for more severe asthma. Antibiotics, intravenous beta agonists, and intravenous aminophylline have been shown to add little and may increase adverse effects.¹

What is the relevance of these findings to the ICU? As far as magnesium is concerned, there are no data. The studies have all been done in the emergency department, generally with a single IV bolus of magnesium at the onset of therapy. There is no evidence that repeated dosing would increase the beneficial effect, or that any relevant outcome would be affected in patients requiring admission to the hospital. Magnesium is inexpensive and essentially without side effects when used as described in the study by Silverman et al, so that, if magnesium has not been given in the emergency department, it would be reasonable to add it as a single dose. The mainstays of therapy for acute severe asthma, however, remain



beta-agonist bronchodilators given by aerosol and corticosteroids administered systemically. ■

Reference

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Hyperbaric Oxygen for Carbon Monoxide Poisoning

ABSTRACT & COMMENTARY

Synopsis: In this carefully done, double-blind, placebo-controlled clinical trial, hyperbaric oxygen administered in 3 treatment sessions over 24 hours reduced the incidence of impaired cognitive function following acute carbon monoxide poisoning.

Source: Weaver LK, et al. Hyperbaric oxygen for acute carbon monoxide poisoning. *N Engl J Med*. 2002; 347(14):1057-1067.

In an important, large-scale study addressing a controversial issue, Weaver and colleagues at the University of Utah compared hyperbaric oxygen (HBO) therapy to normobaric oxygen therapy in patients with acute carbon monoxide (CO) poisoning, using a randomized, double-blind, controlled (sham HBO treatment) design. Beginning in late 1992, Weaver et al evaluated 98% of all patients with known CO poisoning seen in the hospital emergency departments of hospitals in Utah, Idaho, and Wyoming for possible inclusion in the study. Patients with documented CO poisoning were enrolled if they had loss of consciousness or other central-nervous-system manifestation, nausea, vomiting, cardiac ischemia, or metabolic acidosis, and could be enrolled and begun on HBO treatment within 24 hours of CO exposure.

Patients received either HBO therapy (sessions with 100% oxygen at pressures of 3, 2, and 2 atmospheres absolute over 24 hours) or sham HBO (sessions with air at sea-level pressure as compared to ambient Salt Lake City barometric pressure of 0.85 atmospheres absolute) in a monoplace HBO chamber. The respiratory therapists operating the chamber knew whether HBO or sham treatment was being administered, but this was concealed from both the patients and Weaver et al throughout the study and through 12 months of follow-up. Psychologists unaware of the treatment group administered neuropsychological tests, immediately

after chamber sessions 1 and 3, and at 2 and 6 weeks and 6 and 12 months following original exposure. The primary study outcome was the incidence and severity of cognitive sequelae at 6 weeks.

A total of 460 patients were screened, of whom 332 were potentially eligible for the study and 152 were enrolled (76 patients in each group). According to the predetermined regimen for interim analysis of the results, the study was stopped after 150 of the planned 200 patients had been enrolled, because HBO was shown to be efficacious ($P < 0.01$). The patients (29% females) were 35 ± 10 yrs old in the HBO group and of similar demographics in the placebo group. Mean blood levels of carboxyhemoglobin (COHb) in the 2 groups were the same, 25% initially and approximately 5% at the time of the first treatment in the chamber. Eight patients in each group were initially intubated. None of the patients died.

Cognitive sequelae at 6 weeks were present in 25% (19 of 76) of the HBO patients and in 46% (35 of 76) of the control patients (adjusted odds ratio, 0.45; with 95% confidence interval, 0.22-0.92; $P = 0.03$). Although more of the control patients had cerebellar dysfunction on initial examination (15% vs 4%), the significant increase in cognitive sequelae persisted even after adjustment for this and for other stratification variables. Patients randomized to the HBO group continued to have significantly less cognitive disturbances at 12 months. Adverse effects of the HBO treatment were minor and consisted mainly of anxiety and ear problems.

■ COMMENT BY DAVID J. PIERSON, MD

This is a landmark study that will be quoted widely and will influence practice for a long time. The *New England Journal of Medicine* made a big deal of its publication: an 11-page lead article (longer than most of the Journal's original research reports), an accompanying editorial¹ and a clinical perspective.² With a very well-designed and carefully described study, Weaver et al have substantially improved the quality of clinical evidence now available for managing patients with acute CO poisoning. They have shown that patients with this condition who demonstrate initial neurological or cardiac abnormalities, or who present with nausea and vomiting or metabolic acidosis, benefit from HBO therapy with respect to the incidence of long-term cognitive sequelae.

A recent review of HBO in these pages by Takezawa³ concluded that this form of therapy had been shown to be effective in diabetic foot ulcer, and that the rationale and clinical imperative for treatment in decompression

sickness were sufficiently compelling to justify its use in that condition. However, based on the literature published to date, including the results of 5 randomized controlled trials, HBO could not be recommended as an effective treatment for CO poisoning. Although Takezawa's review drew criticism from several well-known authorities on HBO in the form of letters and phone calls to the Editor, his conclusions could be justified on the basis of the evidence published prior to the appearance of the present paper.

This statement is supported by a Cochrane Review by Juurlink et al⁴ earlier this year. Juurlink and colleagues point out that the favorable results of a number of nonrandomized trials of HBO in CO poisoning have led to its widespread use for this indication. However, their review of 6 randomized controlled trials failed to show an overall benefit of HBO with respect to long-term neurologic sequelae: symptoms possibly related to CO poisoning were present in 34% (81 of 237) of patients who received HBO (albeit with varying regimens) as compared with 37% (81 of 218) of patients treated with normobaric oxygen (OR for benefit from HBO, 0.82, 95% CI, 0.41-1.66).

One reason the literature on this has been suboptimal is that this kind of research is complex and difficult to do well. The Utah group has a track record of successful performance of careful, large-scale clinical outcome studies, and they appear to have "gotten it right" with this one. Their report has been a long time coming. It has been a decade since the first patients were enrolled. The study was first discussed at a national meeting 7 years ago, and the upcoming positive results have been touted for several years. It is a relief to see it, finally, in print.

Clinicians should be cautious in applying the results of this study to their practice. Weaver et al used 3 HBO sessions, whereas a study published in 1995⁵ found that 74% of practitioners who provided HBO treatment used only a single HBO session for CO poisoning. Whether benefit similar to that shown in the study by Weaver et al would occur with only one HBO session is unknown and should probably not be assumed. ■

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Special Feature

PEEP, Recruitment Maneuvers, and Open-Lung Strategies in Patients with ARDS

By Dean R. Hess, PhD, RRT

In the care of mechanically ventilated patients with the acute respiratory distress syndrome (ARDS), an issue that has generated much discussion in recent years is that of positive end-expiratory pressure (PEEP), recruitment maneuvers, and the so-called "open lung" approach. What is the role of PEEP and recruitment maneuvers in patients with ARDS?¹ How important is it to aggressively apply strategies to improve arterial oxygenation? This question brings us to the issue of *physiologic benefits*, such as blood gas results, vs *patient-important outcomes*, such as survival. As clinicians, we have traditionally made adjustments on the ventilator to improve the patient's blood gases. However, what is important for the patient is whether they survive their acute respiratory failure. Most patients are not interested in their PaO₂. I suspect that few patients (or their families) ask about their blood gases results. However, they are very interested in whether they are likely to survive their mechanical ventilation course.

There is accumulating literature that suggests that PaO₂ is not a good predictor of survival. Inhaled nitric oxide improves the PaO₂ in most patients with ARDS but does not affect survival.² Mask CPAP in patients with acute hypoxemic respiratory failure improves the PaO₂, but it does not affect the intubation rate or survival.³ We know from the ARDS Network study that higher tidal volumes in patients with ARDS result in a higher PaO₂, but survival is better with lower tidal volumes.⁴ Prone positioning improves PaO₂ in patients with ARDS, but it does not affect mortality.⁵

Rationale for PEEP

I suggest that the reason to use PEEP in patients with acute lung injury is as part of a lung-protective strategy,

rather than simply a way that we can increase the PaO₂ and lower the FIO₂. Collapsed alveoli adjacent to open alveoli can promote the development of shear forces within the lung during tidal ventilation that could potentially be injurious.⁶ Perhaps we can eliminate these high shear forces if we use an adequate amount of PEEP to maintain alveolar recruitment. There are data published more than 25 years ago showing that if the lungs in a small animal model are ventilated with an inspiratory pressure of 45 cm H₂O and no PEEP, much injury quickly occurs in the lungs. However, with the same inflating pressure and a PEEP of 10 cm H₂O, the lungs are protected against much of the injury associated with this high inflation pressure,⁷ suggesting that PEEP may be part of a lung protection strategy.

What is an appropriate level of PEEP in patients with acute lung injury or ARDS? Although few would argue that an appropriate level of PEEP is important, evidence is lacking upon which to base firm guidelines for setting PEEP. Advocates of the open-lung approach argue that high levels of PEEP should be used to maximize alveolar recruitment. Those who advocate strict adherence with the ARDS Network approach use the combination of PEEP and FIO₂ that maintains the PaO₂ between 55 and 80 mm Hg (or an SpO₂ between 88% and 95%). Higher levels of PEEP often—but not always—improve the PaO₂. Although there is considerable emotion associated with the appropriate setting of PEEP, there is a lack of evidence that higher PEEP levels improve patient-important outcomes like survival. In fact, a recently completed (still unpublished) ARDS Network study compared a modest level of PEEP to a higher level of PEEP in patients with acute lung injury and ARDS and failed to demonstrate a survival benefit for the use higher PEEP levels.

Recruitment Maneuvers

In recent years, there has been enthusiasm toward the use of recruitment maneuvers in an attempt to open collapsed lung tissue. The rationale for this approach is that an open lung is part of a lung protection strategy. A recruitment maneuver is a sustained increase in airway pressure, typically performed by increasing the PEEP setting on the ventilator to 30-40 cm H₂O for 30-40 seconds, after which a sufficient amount of PEEP is applied to keep the lungs open. This generally results in levels of PEEP higher than what many clinicians are accustomed to using. There have been a number of strategies reported as recruitment maneuvers. These include increasing the PEEP setting on the ventilator, using sustained inflations, the use of frequent sighs on the ventilator, use of ventilator modes that encourage

spontaneous breathing, high frequency oscillation, and prone positioning.

There are some physiologic data reported to suggest that recruitment maneuvers and the open-lung approach might be helpful. As part of a lung protective ventilation strategy producing improved survival, Amato et al used recruitment maneuvers.⁸ There are CT images showing much dependent lung collapse that improved after an aggressive recruitment maneuver⁹ and a case series reporting an improvement in arterial oxygenation following the recruitment maneuver.¹⁰

However, other recent studies have questioned the benefit of recruitment maneuvers. Villagra et al¹¹ reported that recruitment maneuvers have no short-term benefit on oxygenation. Grasso et al¹² reported that recruitment maneuvers were only useful to improve oxygenation in patients with early ARDS and those without an impairment in chest wall mechanics. In patients with brain injury, Bein et al¹³ reported that recruitment maneuvers marginally improved arterial oxygenation and adversely affected cerebral hemodynamics.

The effect of recruitment maneuvers on arterial oxygenation may depend on whether the pathophysiology of ARDS is primarily atelectasis, consolidation, or edema. If the underlying pathology is atelectasis, then one might expect a large benefit from recruitment maneuvers. In many patients with ARDS, however, the underlying pathophysiology is more likely to be consolidation or edema. In the case of consolidation, a recruitment maneuver may be more harmful than beneficial because it may cause over-distention injury of the unaffected lung. A similar argument might be made in the case of edema. Interestingly, Crotti et al¹⁴ reported a potential for recruitment of only about 6% of lung parenchyma. In a recent commentary, Hubmayr¹⁵ made a convincing argument that the dependent lung in ARDS is primarily fluid-filled rather than collapsed. If this is the case, then the benefit of open-lung strategies (ie, recruitment maneuvers and high PEEP) for lung protection are called into question.

Conclusion

Although there has been a lot of enthusiasm about using lung recruitment maneuvers in patients with ARDS, I submit that there is still a lot we need to learn about this. We do not know which are the best patients in whom to apply recruitment maneuvers; we do not know which technique (if any) is the best one to use; we do not know how to set the PEEP after we do recruitment maneuvers; and we do not know how to monitor the effect of recruitment. We do not know the safety of these maneuvers. Although I have seen impressive

increases in PaO₂ for some patients after a recruitment maneuver, I have also seen significant hemodynamic compromise and subcutaneous emphysema.

Perhaps most important, we do not know the effect of recruitment maneuvers on patient-important outcomes like survival. The question that remains in relation to using recruitment maneuvers and high levels of PEEP is whether open lungs are “happy” lungs or simply “pretty” lungs. As stated by Hubmayr,¹⁵ “. . . maximizing oxygen tension through the use of aggressive recruitment may be gratifying in the short term, but at this point, who can say that it prevents lung injury and promotes alveolar repair?” ■

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CME/CE Questions

7. After introduction of acute care nurse practitioners (ACNP) into a neuroscience ICU and neurosurgical unit:
 - a. mean days on mechanical ventilation decreased.
 - b. conflicts developed between the ACNP and nursing staff.
 - c. conflicts developed between the ACNP and house staff.
 - d. overall length of stay decreased.
 - e. cost and clinical outcomes were unchanged.
8. Addition of an ACNP to the team managing patients in a neuro-ICU:
 - a. decreases mortality.
 - b. decreases unit readmissions.
 - c. improves house staff teaching.
 - d. All of the above
 - e. None of the above
9. Intravenous magnesium sulfate is effective in acute asthma under which of the following conditions?
 - a. When given as a single 2-g IV dose
 - b. When administered to patients with the most severe obstruction
 - c. When used in conjunction with beta agonists and corticosteroids
 - d. All of the above
 - e. None of the above
10. Intravenous magnesium sulfate has which of the following effects (as compared with placebo) in patients presenting with acute severe asthma?
 - a. Improved airflow as measured by FEV₁
 - b. Decreased dyspnea
 - c. Decreased rates of hospitalization
 - d. All of the above
 - e. (a) and (b) but not (c)
11. Hyperbaric oxygen treatment for acute carbon monoxide poisoning:
 - a. reduces mortality.
 - b. decreases ICU stay.
 - c. reduces the incidence of late cognitive impairment.
 - d. All of the above
 - e. None of the above

Using ‘Travelers’ to Meet Staffing Needs is Harder in ICUs

Reasons for Hiring Temporary Staff Determine Success, Administrator Says

By Julie Crawshaw, Critical Care Plus Editor

Travelers—those ICU nurses, respiratory therapists, radiology techs, and critical care personnel who are not permanent staff members—are a hot topic in critical care circles these days, and hospitals face tough questions about whether and how many of these people to use.

The problem is especially significant in ICUs where the hospital’s sickest patients make a high degree of smooth staff interaction an absolute necessity.

On paper, travelers offer the necessary qualifications, says Max Harry Weil MD, PhD, MACP, Master FCCP, FACC, Distinguished University Professor and president of the Institute of Critical Care Medicine in Palm Springs, CA. But in practice, Weil says, travelers are not likely to function as competently in the environment over the short run because it takes time to learn how to respond to other personnel, patients and the culture of the hospital.

“The staffing turnstile we now face is hardly an ideal system,” he adds. Hospitals, Weil observes, can’t keep their doors open if they fail to provide accredited staff and will use whatever means they have to recruit those staff from agencies, even those located as far away as Canada and the Philippines.

The underlying problem is macro-economic, Weil says, because medicine is now a marketplace in which well-industrialized HMOs and for-profit hospitals are giving philanthropic organizations and non-profit hospitals a run for their money.

“The only response to a personnel shortage in an industrialized environment is to make the position more competitive,” he adds, noting that in many places registry personnel are better paid than permanent personnel. “More competitive means that the incentives for becoming a critical care nurse attract an increasing number of entry-level personnel.”

Weil, who was the first president of the Society of Critical Care Medicine, says the problem is exacerbated because modern hospitals are turning into one large intensive care unit due to the large volume of patients who now receive care as outpatients.

“What’s left in the hospital is more severe disease,” Weil says, “What appears to be more intense need and sicker patients actually has to do with shorter hospital stays, more outpatient-delivered care, and more elaborate and invasive procedures.”

Reasons Affect Success

No matter the reason, hospitals must hire some temporary labor or risk longer hours for existing staff and fewer resources for patients. But Paul Ocon, RN, MPA, administrator of Critical Care Service at Children’s Memorial Hospital in Chicago, says the reasons hospitals use travelers determine how much benefit they receive.

Planned back-filling around unavoidable staff fluctuations, such as when a temporary nurse comes on board for a permanent staff nurse’s maternity leave, enjoys much more success than using travelers because the hospital can’t keep regular staff on board, Ocon says. “The impact of today’s nursing shortage tests what I learned in nursing

school, namely that there is no shortage of nurses, only a shortage of places where nurses want to work,” he adds.

Solving the problem goes beyond being a good employer. Ocon believes that hospital personnel must share a strong sense of mission and commitment throughout the personnel ranks.

“We’re a magnet hospital and are very proud of the things we do to help retain our team,” Ocon says. He adds that the American Nurses Association made Children’s the first hospital in the country to receive its prestigious Nursing Excellence Magnet Award. “It means we as health care leaders and clinicians need to promote opportunities in our professions versus discouraging the next generation from joining our ranks.”

The positive side of temporary labor, Ocon notes, is that it attempts to provide the right number of caregivers to provide appropriate care. Using travelers may also help a hospital implement retention strategies by allowing clinicians to work every third weekend instead of every other weekend.

The downside factors of travelers are that their costs are extremely high, the team dynamics between temporary and core staff become complicated because the traveler must learn new systems, and hospital administrators must expend additional time and energy making sure traveling staff are competent.

As the pediatric teaching facility of Northwestern University’s Feinberg School of Medicine, Children’s Memorial faculty includes specialists in every known pediatric specialty. Ocon says this translates to patients with a higher acuity level and that translates to a greater demand for experienced clinicians at the bedside.

The best results occur when travelers become committed to the hospital’s mission, Ocon says, a feat much easier said than done. Some travelers apply because they want to live in a particular city or climate. Many seek temporary work only because the pay is better than a permanent position in the area they left.

“It’s hard to align temporary labor’s motivation beyond the dollars and that sometimes reflects in the type of care they provide,” Ocon says, adding that it’s much easier for a hospital to train and measure competence in permanent staff. With a temporary agency, administrators really have to ask some probing questions about the type of training travelers have had and what equipment they know how to use.

(For more information contact Max Weil, MD, at [760] 323-6867; and Paul Ocon [773] 880-3947.) ■

Grants Focus on Improving Nursing Skills

ANA, Mather Institute Promote Specialization in Separate Programs

The ramifications of an aging nursing faculty plus a nursing turnover rate of almost 26% are particularly serious for geriatric care, says Linda Hollinger-Smith, PhD, director of research at the Mather Institute on Aging in Evanston, IL. But the Learn, Empower, Achieve and Produce (LEAP) staff development program Hollinger-Smith started has reduced her facility’s turnover rate from 76% to 34% for CNAs and from 47% to 22% for RNs.

LEAP, begun as an initiative to help RNs in long-term care, is funded by a grant from the federal Health Resources and Service Administration (HRSA). Mather LifeWays is using the funds in collaboration with nursing schools at three major universities to offer a Web-based distance-learning program that gives nursing faculty in 26 states the latest geriatric nursing information.

The program consists of six online courses of eight weeks each that students may take at their own pace and can complete in about a year. Rush University in Chicago, Yale University, and the University of Wisconsin/Milwaukee are partnering with Mather on the program, which allows nursing faculty to enter at any time during the three-year grant period.

Hollinger-Smith says she started LEAP in 1999 to help RNs, CNAs and practical nurses develop and remain in their health care careers. The program focuses on the so-called “soft skills” such as learning how to communicate, developing positive relationships with supervisors and co-workers, and learning how to recognize and reward good behavior.

“We call those essential skills,” Hollinger-Smith says. “They have to be in place before you can start looking at quality indicators and other things the government wants us to focus on.” Nursing students, she observes, choose working in critical care because the money’s much better than in long-term care.

Hollinger-Smith says her program succeeds by building a “career ladder” that offers CNAs financial incentives for increasing their skills in specialized areas such as skin care or dementia care, for example. “We’re also teaching directors of nursing from many other facilities how to teach and implement LEAP,” she says. “We’re concentrating on training the trainers now.” The Florida Department of Services for the Aging has adopted

LEAP as a model program.

One of the key elements in retention, Hollinger-Smith says, is providing a thorough orientation that makes new health care workers feel welcome in their workplace and encourages them become mentors for those hired after them.

“We’re focusing on this instead of on recruitment because all of the literature says there are not enough people in the wings waiting to enter the work force,” explains Hollinger-Smith. She points out that over the next seven-and-a-half years there will be one million positions for CNAs, but according to the Bureau of Labor Statistics, only about 400,000 women will be available to choose that career path.

“Even if every one of them went into the direct care workforce, there just aren’t enough people,” Hollinger-Smith says. “We really have to focus on how we can better develop and retain the folks we have now.”

ANA Gets \$5 Million Aging-Care Grant

Another new program aimed at boosting nursing skills is offered by the American Nurses Association (ANA) with a \$5 million grant. The program, called “Enhancing Geriatric Competence of Specialty Nurses,” seeks to help more than 400,000 nurses deliver better care to aging adults.

The ANA will work with specialty nursing organizations to implement the grant, which has three goals:

- creating permanent structures for geriatric activities in specialty nursing associations;
- promoting gerontological certification of specialty nurses;
- developing a web-based comprehensive geriatric nursing resource center.

Virtually all nurses provide care to older adults at some point in their careers. Current demographics project that the over-65 population will double over the next 30 years, reaching 70 million by 2030. Those over age 85 are the fastest growing segment of this population, which makes by far the biggest demand on health care services and facilities. Figures from the Bureau of Labor Statistics indicate that the current nursing shortage will soon reach crisis proportions, with more than one million new nurses needed by the year 2010.

The grant, from the Atlantic Philanthropies and implemented through a strategic alliance between ANA and the Hartford Institute for Geriatric Nursing, promotes gerontological nursing certification at generalist and specialist levels. Though geriatric care is one of the fastest-growing nursing specialties, less than 1% of nurses hold geriatric nursing certifications.

(For more information, contact Linda Hollinger-

Smith at [847] 492-6815; and the American Nurses Association [800] 274-4262.) ■

Hospitalist ER Involvement Lowers Facility Costs

Uninsured and underinsured patients better screened

Two California-based hospitalist groups say their involvement in emergency room care for unsigned patients lowers hospitals’ unreimbursable costs by assisting in triage, thus reducing the number of unnecessary admissions.

Alan Puzarne, CEO of Cogent Health Care of Laguna Beach, Calif, says hospitalist physicians help move people through the ER more quickly, triage those patients who need to be hospitalized, and help less ill patients find alternatives for treatment.

“More people are uninsured today, and more are using the ER to access care,” Puzarne says. “ERs are absolutely over capacity and hospitals are full.”

A recent report from the Institute of Medicine says uninsured patients are less likely to receive preventive care services and care for chronic conditions than insured patients. Puzarne notes that the number of Americans without health insurance has risen sharply since the mid-1990s, and more than 40 million people are currently uninsured.

According to the American Hospital Association, hospitals provided \$21.6 billion of uncompensated care in 2000, often to uninsured or underinsured patients without primary care physicians. Such patients often use ERs for routine care. Puzarne points out that when these patients are not triaged appropriately they can be admitted unnecessarily, filling beds in hospitals that are already overcrowded.

“Hospitalist involvement helps ER physicians decide who among their patients needs to be hospitalized, thus effectively increasing the facility’s capacity without adding more beds,” Puzarne says.

James S. Potyka, MD, FACEP, medical director for the emergency department physician group for Baptist Health System in San Antonio, TX, says his system includes 38 ER physicians who cover five hospitals and see more than 140,000 patients per year. It began using Cogent hospitalists in December 2001.

Potyka observes that many physicians are reluctant to take care of indigent or uninsured patients because they tend to have more complications, a mindset

Potyka says hospitalists don't seem to have. He adds that hospitalists' presence offers cost saving benefits even with patients who have insurance and a primary care physician.

"If I were using a group of internists who didn't really want to come to the hospital they might admit patients just because they didn't want to come to the hospital," Potyka says. "A lot depends on the quality of the emergency physician group and on the on-call physicians, but the hospitalist is already there."

Weston G. Chandler, MD, FACP, President of Pacific Hospitalist Associates and director of the hospitalist program at Hoag Memorial Hospital in Newport Beach, CA, says one of the fastest growing parts of the hospitalist movement is contracting for unassigned patients through the ER. Chandler says the hospitalists his group provides evaluate patients in the emergency room and expedite the ER work-up from an internal medicine standpoint.

"They may order a few more tests, find the patient does not need to be hospitalized and arrange for them to be seen as outpatients, avoiding admission altogether," he says. Chandler adds that hospitals generally contract with hospitalists for all unassigned patients who come through the ER, many of whom have insurance but no primary care physician.

Chandler estimates he redirects care for about 10% of the patients he sees in conjunction with ER physicians. "For those patients who don't have insurance there's an obvious cost savings involved," Chandler notes. "At Hoag, we're also seeing an increasing number of private, fee-for-service patients because their primary care physicians know we're available 24/7."

(For more information, contact Alan Puzarne at [888] 646-7763, James Potyka, MD, at [210] 495-9860, and Weston Chandler, MD, at [877] 742-4624.)

New Privileging Standard Addresses Emergency Situations

A new hospital standard from the Joint Commission on Accreditation of Healthcare Organizations addresses the problem of privileging physicians quickly when disaster strikes. The issue was raised recently in light of last year's terrorist attacks and the threat of more to come.

The new standard addresses the privileging of volunteer Licensed Independent Practitioners (LIPs) during emergencies. Standard MS.5.14.4.1 states: "In circumstances of disaster(s), in which the emergency management plan has been activated, the chief executive officer or medical staff president or their designee(s) may grant emergency

privileges." The Joint Commission reports that while the use of volunteers is not mandated, the standard provides a means for hospitals to use volunteers in emergencies.

In a statement released with the new standard, the Joint Commission explains that the standard outlines acceptable sources of identification of volunteer LIPs, including a current license to practice, a current picture hospital I.D. accompanied by the LIP's license number, or verification of the volunteer practitioner's identity by a current hospital or medical staff member. The standard is effective immediately.

"This standard was created following JCAHO's debriefing of health care personnel involved in last year's Houston, Tex, flood and in response to the terrorist attacks in New York City and Washington, DC," the accrediting body reports. "These personnel identified a specific need for rapid access to clinicians to assist in meeting patient care demands in emergencies." ■

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