So when Ellis reached out, Leap began to consider formalizing a mentorship exchange for the entire chapter. “We were thinking about the theme ‘no CDI specialist left behind,’” she laughs.

Leap invited Ellis over for a visit.

“I had no idea what CDI was really all about,” says Ellis, adding that Daviess knew it needed a formal CDI program but had no previous guidance or experience in the field.

Like Ellis, Burke started her CDI program from scratch. Only Burke started back in 1986. There were no computers then. She handed out paper queries and spent most of her time out walking the floors. Burke admits, “I had the same feeling of being terrified when I started.”

That’s why Burke and Leap did everything possible to help make Ellis’ visit as structured and successful as possible. They showed Ellis Union’s and Wishard’s chart review process and illustrated the value of follow-up reviews. Leap reviewed her facility policies and process and explained the value of compliance. Burke arranged to take Ellis with her as she followed up with the physicians on the floor.

The physicians even helped, introducing themselves and giving Burke a good-natured ribbing about the queries she was reviewing.

“Seeing that physician interaction firsthand was so important,” says Ellis. “It gave me a true-to-life vision of what I could be doing, of what a successful program looks like, something to strive for.”

Leap also provided Ellis with copies of various materials and made herself available to answer questions to complete the mentorship experience.

“Eight hours [of job shadowing] doesn’t seem like enough time,” says Burke. “Because you know what they are up against, what they are feeling [as new CDI professionals], you want to coddle them and help take them through the next three months. But we both did what we could in eight hours without scaring her to death.”

Editor’s note: If you are interested in becoming a CDI mentor, contact your local chapter leader or join the ACDIS national mentorship team by emailing Associate Director Melissa Varnavas at mvarnavas@cdiassociation.com.

Defining and diagnosing acute respiratory failure

by Trey La Charité, MD

On the surface, defining acute respiratory failure seems to be a relatively straightforward task. However, many providers find it difficult to arrive at this diagnosis without repeated queries from the CDI specialist.

In my opinion, some of this reluctance stems from a lack of understanding of how to gather the needed information. Some reluctance is also due to provider variability in determining when the patient is “sick enough” to make this diagnosis. The discussion and examples that follow, while not intended to be a comprehensive review of human physiology or pathology, should serve as a starting point for your educational efforts.

Two out of three

Technically speaking, acute respiratory failure requires
the existence of any two out of the three following clinical indicators:

1. **pO2** (partial pressure of oxygen) less than 60 mmHg (i.e., hypoxemia)
2. **pCO2** (partial pressure of carbon dioxide) greater than 50 mmHg (i.e., hypercapnia)
3. Signs and symptoms of acute respiratory distress

Providers have traditionally relied on two pieces of evidence to make this diagnosis. The first is the arterial blood gas (ABG) to obtain the pCO2 and pO2 measurements. Unfortunately, in my experience, the average respiratory workup in the emergency department rarely includes an ABG. The second is described below.

**Oxygen-hemoglobin option**

Fortunately, there is another option available for assessing a patient’s oxygenation status. To understand this point, we need to review the oxygen-hemoglobin dissociation curve. Based on that curve, a peripheral oxygen saturation of 90% on room air is roughly equivalent to a pO2 of 60 mmHg on ABG. This means that a peripheral oxygenation saturation of 89% must have a corresponding pO2 of less than 60 mmHg.

Therefore, one of the three criteria for the diagnosis of acute respiratory failure is met if the recorded peripheral oxygen saturation is 89% or less. In other words, your providers are not absolutely dependent on ABG results to make this diagnosis.

While ABG is arguably not imperative to make this diagnosis, CDI professionals should be aware that using only peripheral oxygenation saturations to establish a patient’s oxygenation status can invite auditor scrutiny. I have heard of auditors telling facilities that this diagnosis could not be documented without the presence of ABG in the record. Be prepared to defend your criteria with a detailed explanation if you do base it on the oxygen-hemoglobin dissociation curve.

Furthermore, be aware that the oxygen-hemoglobin dissociation curve is not physiologically static. It will shift left or right depending on the patient’s pH, body temperature, altitude, and other factors. This phenomenon alters the equivalent pO2 for a given peripheral oxygenation saturation.

Anecdotally, one auditor told a facility that the diagnosis of acute respiratory failure could not have been present because the facility was located at “X” feet above sea level. The auditor’s argument was that the oxygen-hemoglobin dissociation curve at that altitude is shifted to the right as more oxygen is released to the tissues. This means that the pO2 becomes higher for a given peripheral oxygen saturation. This necessitates the patient dropping to a much lower peripheral oxygen saturation to achieve that critical pO2 of less than 60 mmHg. (See the graph on p. 13.)

As an additional precaution, I recommend setting a peripheral oxygen saturation of 88% as your threshold instead of 89% so as to appear as conservative as possible. My facility has adopted this threshold since Medicare approves home oxygen therapy when a room air oxygen saturation of 88% or less is obtained (in the chronic steady state prior to discharge). Our position is that it is very difficult for an auditor to argue against already-established criteria set by CMS.

**Ambiguous data**

CDI professionals must guard against providers making the diagnosis of acute respiratory failure based on erroneous or ambiguous data. Often acute respiratory failure is documented, yet the patient’s oxygen saturation level was obtained while the patient was on supplemental oxygen therapy.

For example, if the oxygen saturation obtained for a given patient was 97% while on four liters per minute of oxygen by nasal cannula, you do not have an accurate representation of that patient’s oxygenation status.

In other words, in this example, the diagnosis of acute respiratory failure would be valid if the oxygen saturation dropped to 84% when the patient was removed from the supplemental oxygen. However, the diagnosis would be invalid if the patient’s oxygen saturation only dropped to 92% when the supplemental oxygen was removed.

This information can mean the difference between lost reimbursement to a savvy auditor or a successful appeal. Additionally, from a medical necessity aspect, this information could also mean the difference between an inpatient admission and an observation stay.

Educating your ER staff that oxygen saturations must be obtained on room air only is vital to establishing this component of the criteria. Additionally, a patient with a low oxygen level only is merely “hypoxemic.” In order for the
diagnosis of acute respiratory failure to be valid, other indicators must clearly be present.

**Importance of physical exam**

The second piece of information necessary to make this diagnosis comes from the provider’s physical exam. Two of the most common signs of respiratory distress are a respiratory rate greater than 20 (tachypnea) or the presence of brief, fragmented speech as evidenced by the inability of the patient to complete a full sentence without taking a deep breath.

Other symptoms of respiratory distress include:

» The inability to lie supine without becoming short of breath. Sitting upright maximizes gravity’s effect on the lungs, ensuring full expansion, and on the diaphragm, by making it easier for this muscle to contract. (Note: This may be the same sensation as experienced with orthopnea due to congestive heart failure.)

» Diaphoresis (sweating), cyanosis (a bluish discoloration of the digits of the hands or feet), or depressed or altered mental status (due to low oxygen levels or high carbon dioxide levels).

» Intercostal muscle retractions or the use of accessory abdominal muscles during respiration in more severely ill patients. This is most pronounced when the patient displays the phenomenon of paradoxical respirations—the patient’s abdomen contracts or moves inwardly when they try to inhale. This is an abnormal physical exam finding that occurs because the patient is using every available muscle (including abdominal) to try to ventilate their lungs. When breathing normally, one’s abdomen moves outwardly with inspiration as the contracting diaphragm descends, compressing the abdominal contents. Paradoxical respirations should be considered an ominous sign that the patient is facing impending respiratory arrest and likely needs urgent intubation.

How many clinical signs must be present before diagnosing “respiratory distress”? Unfortunately, no magic number exists. However, in my experience, if the patient has one of these signs present, they will most likely be displaying one or more of the other signs as well.

**Consistency is key**

Another problem I have encountered when clarifying acute respiratory failure is that the provider’s description of the patient may sometimes contradict the nursing notes. For example, the provider says that “the patient is tachypneic and unable to complete a full sentence without taking a deep breath.” However, the nursing notes indicate that the respiratory rate is 20 and the patient “appears to be in no acute distress.”

My hunch is that this phenomenon is easily explained by the overwhelming workload placed on the ER nurse, and that the nurse selected the simplest thing to complete the documentation.

Regardless of the reason for the competing vision of the patient, the incongruence should be addressed at the time of care so that the medical record relays one complete and cohesive story.

**What is not needed for acute respiratory failure**

Ultimately, the most troublesome aspect of this definition is understanding what is not required to make the diagnosis. Admission to the ICU, institution of BiPAP, and/or intubation with mechanical ventilation are not part of the definition of acute respiratory failure. Therefore, while a patient may not be sick enough to require an endotracheal tube or an ICU bed, they may still be in acute respiratory failure.
Respiratory failure documentation clarification

To: Dr. Tel:  
Patient name: MRN:  
Admit date: D/C date:  

Documentation clarification is required to meet compliance and accuracy in the coding of the severity of illness of your patient.

❖ On ___________________________ you documented "Respiratory Distress/Insufficiency" in the progress note.

❖ The following criteria may be suggestive of acute respiratory failure:
  □ Respiratory distress, difficulty breathing, hypoxemia  
  □ PaO2 less than 60 mmHg/SpO2 less than 88% on room air or equivalent  
  □ PaCO2 greater than 50 mmHg/pH less than 7.35 (if COPD)  
  □ Treatment with BiPAP  
  □ Paradoxical breathing and/or cyanosis  
  □ Accessory muscle use  
  □ Other ___________________________  
  (Coding Clinic, Third Quarter 1988, p. 7)

❖ Please clarify if this patient has:
  □ Acute respiratory failure  
  □ Other respiratory condition ____________________________________________

Other physician comments: __________________________________________________

______________________________________________________________  
Physician signature ____________________________________________ Date __________

Thank you for your time in reviewing this request. Your response is greatly appreciated.

CDI specialist: ______________________ Phone: ____________________ Pager: ____________________

Source: This query was donated by Sharyn Jodlbauer from St. Francis Medical Center in Trenton, N.J., a member of the New Jersey ACDIS Chapter, on June 28, 2013. Contact her at sjodlbauer@che-east.org.
For example, how many patients with chronic obstructive pulmonary disease or asthma exacerbations are sent home from emergency departments every year? Which ones need to be admitted to the acute care setting? I suspect that many COPD, asthma, or pneumonia patients who required hospital admission actually met the criteria for acute respiratory failure but never had this diagnosed.

As a practicing hospitalist, I frequently admit patients who meet these criteria to the general medical floors. However, with aggressive and diligent treatment regimens, I can prevent those patients from decompensating to the point where they need ICU care or a ventilator. While I am not suggesting that only respiratory patients who meet criteria for acute respiratory failure should be admitted to the acute care setting, acute respiratory failure is likely more prevalent than is currently documented by your medical staff.

Over time, clinical practice and experiences alter physician perception of who we believe to be “sick” and who is “not so bad off.” Practicing physicians also concentrate on improving treatment regimens and patient outcomes; they simply have not had the time to review the technical definition of many disease processes since medical school.

As with all things in CDI, physician education is frequently the most important aspect of improved documentation.

Editor’s note: La Charité is a hospitalist with the University of Tennessee Hospitalists at the University of Tennessee Medical Center at Knoxville, and an ACDIS Advisory Board member. He is also a clinical assistant professor with the Department of Internal Medicine and serves as the physician advisor for UTMCK’s Clinical Documentation Integrity Program, coding, and RAC response. His comments do not necessarily reflect those of UTMCK or ACDIS. Contact him at clachari@utmck.edu.

ICD-10 preparation

Strive to improve clinical documentation in all settings

by Laura Legg, RHIT, CCS

CDI initiatives often focus on inpatient documentation to ensure that the documentation accurately reflects patient severity. Capturing that documentation and specificity will be even more important as ICD-10 preparation and implementation efforts get underway.

Yet ICD-10 implementation will have an effect on all settings—not just inpatient.

And just as inpatient services benefit from CDI efforts, so too will the outpatient arena, especially considering that outpatient visits generate 50% of the revenue for some facilities.

CDI specialists can start to expand their efforts simply by providing CDI education to those physician practices the facility owns and operates, tying those efforts to the documentation needs of the particular clinical specialty of the practice.

Alternatively, CDI teams can identify top revenue-generating outpatient departments, perform audits of their documentation, and identify the documentation needs required by ICD-9 and ICD-10.

Armed with those documentation targets, CDI staff can amend their query forms to include those elements and focus education to include ICD-10 needs.

Workflow changes

Organizations must evaluate charting, coding, and chart review processes to ensure that the workflow is efficient and that all processes are streamlined. Processes that don’t work today in ICD-9-CM won’t work in ICD-10-CM either.

ICD-10-CM chart review will be more extensive and require more time. Coders and other office staff members will need to review all documentation in the record, not just information related to the principal and secondary diagnoses or CC/MCC capture.

Nursing notes and therapy documentation will provide a more specific clinical picture and help CDI specialists identify opportunities for queries.

The office documentation and coding team should also ensure that documentation is timely, accurate, and as specific as possible.