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A Message from the President of RNS

Clinical Corner with the RNS President: Chronic Obstructive Pulmonary Disease (COPD)

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2012-2013 President, RNS

Dear RNS colleagues,

As a follow-up to the last clinical corner with the RNS President, the results of the COPD case-finding program will be discussed now. The COPD case-finding program screened high-risk patients with the COPD Questionnaire, conducted pre-post bronchodilator challenge spirometry, staged positive spirometry tests based on the Global Initiative for Chronic Lung Disease (GOLD) COPD guidelines, tracked treatment initiation, made recommendations, including budgetary requirements, to continue the program as standard of care. The number of patients meeting criteria for COPD Questionnaire screening was quantified, the number of negative versus positive COPD Questionnaire scores were reported, and the sensitivity (positive test=disease), specificity (negative test=no disease), positive predictive value [PPV; probability of disease with a positive test], negative

Continued on page 2

INSIDE THIS ISSUE

- 1 President's Message – Clinical Corner; Research & EBP Corner
- 2 Clinical Corner (cont)
- 3 Clinical Corner (cont); Introducing the Honcode
- 4 Honcode (cont); Board-Recommended Web Sites

**BROCHURE FOR RNS
CONFERENCE INCLUDED IN
THIS NEWSLETTER!**

Research and EBP Corner

Finding Resources for Evidence Based Practice

Anne Boyle, RN, PhD

Past President, RNS

This corner will be devoted to information that is related to research-informed and evidence based practice that is relevant to the care of patients, families, and communities impacted by respiratory disease. Promotion of respiratory health and prevention of respiratory disease will also be highlighted.

American Lung Association Report: Women at Greater Risk of COPD

Because of its importance, the Research and EBP Corner this issue will focus on the Lung Association report published in June that describes the alarming increase in COPD in women. We all know the statistic that COPD is currently the third leading cause of death in the United States. But did you know that women are 37% more likely to have COPD than men? The year 2000 was the year that women's deaths from this disease outnumbered those of men, and that trend has continued since then. Amazingly, the number of deaths has more than quadrupled since 1980. This report describes how more than seven million women are currently diagnosed with COPD, and, as respiratory nurses know, that number is just the tip of the iceberg.

The results of cigarette ads touting glamour and "slimness," back in the day of baby boomers' vulnerability to this type of advertising, are being seen now. We have come a long way, but perhaps not to the place where we wanted to be. I urge each of you to read the report and consider its recommendations.

To download a copy of the report, visit:

www.lung.org/copdinwomen.

Citation: American Lung Association. (2013). Taking her breath away: The rise of COPD in women. ■

predictive value [NPV; probability of no disease with a negative test], and receiver operating characteristic [ROC; sensitivity plotted against 1-specificity] curve of the COPD Questionnaire for this sample were estimated.

The COPD Questionnaire has similar properties in this sample of high-risk patients (n=39) to what is published (Price, Tinkelman, Nordyke, Isonaka, & Halbert, 2006; Price et al., 2006; Stoloff, 2011; Levy et al., 2006). Highly specific tools are used to "rule-in" diseases due to high PPV, whereas highly sensitive tools are used to "rule-out" diseases due to high NPV. The sensitivity (0.50) estimated in this sample is less than the lower limit published (0.59-0.80). However, the specificity (0.71) is within the published range (0.58-0.77). The PPV (0.17) is lower in this sample as compared to what is published (0.30-0.37), while the NPV (0.93) is similar to what has been published (0.89-0.93). Fletcher & Fletcher (2005) noted that as the disease prevalence decreases, so does the PPV. With COPD prevalence at 10% in the sample a corresponding lower PPV is not surprising. The larger the area under the curve (AUC) is, the better the tool, with an AUC of 0.5 being no better than flipping a coin (Fletcher & Fletcher, 2005). The AUC for the COPD Questionnaire has been estimated to up to 0.82; however, in this sample is (0.67), likely due to the lower sensitivity and PPV estimated.

Patients diagnosed with COPD (n=4) were all level 2, indicating moderate disease. Based on the COPD Assessment Test score and the number of exacerbations, all COPD patients were within the second treatment option level. At this level, patients should be treated with: a smoking cessation referral, physical activity regimen, annual influenza vaccination, pneumococcal vaccine one before the age of 55 and one after the age of 55, and one of three medication regimens (i.e. spiriva handihaler or serevent diskus; spiriva handihaler and serevent diskus; or atrovent HFA or ventolin HFA or combivent). Since none of the patients were at the mild COPD level, this may explain why healthcare providers preferentially initiated pharmacologic treatment at the initial visit over non-pharmacologic treatments. As standard of care at the clinic, smoking status and number of cigarettes smoked per day is documented at each visit. The staff and

healthcare providers use this as an opportunity to ask about smoking cessation. Patients are also given a clinic calendar that lists when smoking cessation classes are available. Besides smoking assessment standard of care and the moderate level of disease, time was likely another mitigating factor influencing the lack of documentation to support referring patients to the smoking cessation program, educating patients about an appropriate physical activity regimen, or specifically ordering influenza or pneumococcal vaccinations. The clinic has been mandated to increase productivity and streamline its processes, and in doing so, there are constraints on the amount of time healthcare providers can spend with patients in one visit. Instead, interventions will now be spread over more visits, increasing the number of patient visits but decreasing the average time spent in each visit.

Recommendations to continue the COPD case-finding program as standard of care were made. To implement the COPD Questionnaire to screen high risk patients and the COPD Assessment Test to screen COPD patients would entail 2 hours and 20 minutes for training and materials. However, the actual screening time per patient is fairly short at six minutes for the COPD Questionnaire and four minutes for the COPD Assessment Test. If patients are to be referred to a pulmonologist for pre-post bronchodilator challenge spirometry, the overall cost is based on time (i.e., 55 minutes) since the pulmonologist referral would be pro bono. However, if the patients were screened using the pre-post bronchodilator challenge spirometry within the clinic, then there is a substantial initial training and material investment (i.e., five hours and 50 minutes), plus the cost (i.e., \$1.25) and time (i.e., 34 minutes) to screen each patient. The convenience for the patient with the latter option may increase the number of patients completing the prescribed testing. From a minimum resource perspective, implementing the questionnaires with referring patients requiring spirometry to a pulmonologist is the most feasible option to implement.

It is important to note that this budget is based on donated items and pro bono healthcare provider time that may or may not be stable over time. A recommendation for yearly screening of high-risk patients with a negative COPD Questionnaire was made since there were two false negatives in the sample. The maintenance of the program will require continual assessment and revision over time. Staff and volunteer feedback to the chain of command will be essential in the success. The daily huddle and monthly staff meetings will be the core mechanisms for effective communication between the administrative leadership and the front-line patient care staff.

References

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Introducing the HONcode

As a respiratory healthcare professional, I am sure you have had to consider the quality of Internet resources for both colleague and patient health information. We want patients to be informed, active members in their healthcare, but not all health websites provide unbiased information.

When evaluating a website hosting health information, suggested criteria to evaluate include: content, design and aesthetics, disclosures, currency of information, authority of source, usability, accessibility, links and quality of the links, attribution and documentation, and intended audience (Kim, Eng, Deering, & Maxfield, 1999). There are three sets of key guidelines and principles (Williams et al., 2002; HONcode, 2012). First, the Health on the Net (HON) Foundation has developed principles based on authoritative, complementarity, privacy, attribution, justifiability, transparency, financial disclosure and advertising policy. Second, the British Healthcare Internet Association has developed criteria which are similar to HON but added intended audience, disclaimers and cautions, and copyright. Third, are the DISCERN criteria, which focus on explicit aims, relevant to consumers, sources and dates of information, balanced, unbiased, treatment description, and support for shared decision-making.

In particular, let us explore the Honcode, defining each of the eight principles. The authoritative principle reflects that any health related information hosted on

Continued on page 4

RNS Board Recommended Asthma Websites

American Academy of Allergy, Asthma, and Immunology:<http://www.aaaai.org/conditions-and-treatments/asthma.aspx>

American Lung Association:<http://www.lung.org/lung-disease/asthma/>

American Thoracic Society:
<http://patients.thoracic.org/information-series/index.php>

Centers for Disease Control and Prevention:
<http://www.cdc.gov/asthma/default.htm>

National Heart, Lung and Blood Institute:<http://www.nhlbi.nih.gov/guidelines/asthma/>

a website should be from medically trained and qualified healthcare professionals unless there is a clear statement made to the reverse. The complementarity principle reflects that the information provided on the website is designed to supplement and not replace information shared between a patient and healthcare provider. The privacy principle reflects a website's ability to preserve and respect the identity of website users by endeavoring to meet or exceed the legal requirements to protect the health information of patients as required by state or federal law. The attribution principle reflects that health information is referenced (i.e. source data), linked to the source data, and date when the information was last updated. The justifiability principle reflects that appropriate and balanced evidence is presented when any claims on the website relate to the benefits or performance of a specific treatment, commercial product or service is made. The transparency principle reflects that the website provides information in the clearest possible manner, provides contact addresses for visitors that seek further information or support, and the webmaster and editor should clearly display email addresses throughout the website. The financial disclosure reflects a website's publicly disclosed financial associations. And finally, the advertising principle reflects a website's clear distinction between editorial and advertising content.

Websites applying for and meeting the Honcode are authorized to display the Honcode seal of certification. Such websites provide valid and reliable health information for the professional and the patient healthcare consumer. To learn more about the Honcode, visit:

<http://www.healthonnet.org/HONcode/Conduct.html>

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www.respiratorynursingsociety.org

