## Gastroesophageal Reflux Disease Questionnaire (GerdQ) is an Easy and Useful Tool for Assessing GERD

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A well-taken history is essential in establishing the diagnosis of gastroesophageal reflux disease (GERD). There are two main symptoms of GERD: heartburn and acid regurgitation. These two main symptoms have been shown to identify GERD with a sensitivity of 89% and specificity of 94%. The clinical history can diagnose GERD. The GERD patient comes with chief complaints of heartburn and regurgitation of gastric contents. The relief symptoms with acid inhibition provide strong supporting evidence for the diagnosis of GERD.

However, symptom frequency, duration, and severity are equally distributed among patients with varying grades of esophagitis and Barrett's esophagus and cannot be used reliably to diagnose complications of GERD. The GerdQ is a validated tool that can be used for the management of GERD in clinical practice. We can make a diagnosis and know about disease impact, including questions about reflux symptoms, sleep disturbance, and over-the-counter (OTC) medication use. The GerdQ was created from 3 different validated questionnaires evaluated in the DIAMOND study. The GerdQ is a simple communication tool developed for physicians to identify and manage patients with GERD.<sup>1</sup> Some centres and also our centre was used GerdQ to study the prevalence of GERD in primary care.

GerdQ can be used for the online survey. We conducted an online survey using a web-based survey software, Survey Monkey® to determine the prevalence and risk factors of GERD in Indonesian population using GerdQ in 2015.<sup>2</sup> We know that the internet has gained tremendous influence in the information supply and it opens opportunities to study health care and diseases. Some studies found that more than half of online health information seekers searched their symptoms on the internet without prior medical consultation with the physician.

GerdQ has been validated in Indonesia by Simadibrata et al. In their study, they calculated r value for every question in the Indonesian language version of the GerdQ was higher than the tabulated (r = 0.26). It shows that Indonesian version is valid. This validation is consistent with other studies showing that all GerdQ questions originally written in English are valid when translated into the relevant language and used in other countries.<sup>3</sup>

Some studies have evaluated the correlation between GerdQ with other modalities for diagnosing GERD. In this issue, Siregar et al showed that GerdQ had the sensitivity (49%), specificity (91%) and an area under receiver operating characteristic (ROC) of 0.701 (p = 0.02).<sup>5</sup> The study from China showed that GerdQ may be used for diagnosis of GERD. However, a low GerdQ score can't exclude the possibility of reflux esophagitis. Interestingly, a minority of Chinese patients with the high GerdQ score was diagnosed with malignancies, even in the absence of alarm features.<sup>4</sup>

The gastroesophageal reflux disease questionnaire (GerdQ) may represent a non-invasive and costeffective approach for preventing PPI misuse and for identifying whom the appropriate patients for the PPI trial test. He et al develop the pilot study prospectively to evaluate the association between GerdQ scores and PPI response in patients with coronary artery disease (CAD) and gastroesophageal reflux-induced chest pain (GERP). They also determine whether the GerdQ predicts the PPI response in patients with CAD and GERP and to further validate the clinical application value of the GerdQ. From their study, He et al, found that GerdQ scores greater than 7.5 better predicts the response to the PPI test therapy. There was a strong association between the GerdQ score and the response to PPI therapy. Higher GerdQ scores were predictive of a positive PPI response in CAD patients with GERP.6 However, diagnosis GERD by GerdQ is more complicated when symptoms are less clear-cut, especially when the patient complains of chest pain that is not typical heartburn. Sometimes after cardiac or pulmonary disease has been excluded, relief with acid inhibitors supports the diagnosis of GERD.

## **REFERENCES:**

- Dent J, Vakil N, Jones R, Reimitz PE, Schöning U, Halling K, Junghard O, Lind T. Validation of the reflux disease questionnaire for the diagnosis of gastroesophageal reflux disease in primary care. Gut 2007;56:A75.
- Syam AF, Sobur CS, Abdullah M, Makmun D. GerdQ online survey: prevalence and risk factors of GERD in the Indonesian population. Am J Gastroenterol 2015;110:S709-10.
- Simadibrata M, Rani A, Adi P, Djumhana A, Abdullah M. The gastroesophageal reflux disease questionnaire using Indonesian language: a language validation survey. Med J Indones 2011;20: 4-6.
- Bai Y, Du Y, Zou D, Jin Z, Zhan X, Li ZS et al. Gastroesophageal reflux disease questionnaire (GerdQ) in real-world practice: a national multicenter survey on 8065 patients. J Gastroenterol Hepatol 2013;28:626-31.
- Siregar GA, Halim S, Sitepu RR. Comparison of endoscopic findings with gastroesophageal reflux disease questionnaires (GerdQ) and reflux disease questionnaire (RDQ) for gastroesophageal reflux disease in Medan. Indones J Gastroenterol Hepatol Dig Endosc 2015;16:142-6.
- He S, Liu Y, Chen Y, Tanf Y, Xu J, Tang C. Value of gastroesophageal reflux disease questionnaire (GerdQ) in predicting the proton pump inhibitor response in coronary artery disease patients with gastroesophageal reflux-related chest pain. Dis Esophagus 2016;29:367-74.