

**NURSING MANAGEMENT OF GASTROESOPHAGEAL REFLUX DISEASE:  
SYMPTOMS, INTERVENTIONS, CARE PLANNING, ASSESMENT AND  
EVALUATION OF GERD**

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## **ABSTRACT**

GERD, or gastroesophageal reflux disease, is a widespread clinical condition that affects many of people throughout the world. Both common and uncommon indications help to identify the sufferers. In several patients with GERD, acid suppression medication relieves symptoms and prevents problems. The way to identify, observe and treat the consequences of this illness has improved due to advancements in available treatment methods. GERD, according to the Montreal definition, is a disorder characterized by troubling indications and consequences caused by gastric contents refluxing into the esophagus. In this report, the pathogenesis and consequences of GERD are discussed, as well as the therapeutic approach to this frequent illness. The sufferers should be examined for GERD-related warning indications which require complete intestinal assessment. Persons suffering with Patients with GERD should be examined for alarming symptoms, which should necessitate immediate endoscopic assessment. If there are no warning signals, the first line of treatment for GERD should be positive changes. If conventional treatment fails or GERD problems get worse, surgical operation may be suggested. Significant threats for GERD include older age, overweight, nicotine and tobacco intake habits, stress, and lack of physical exercise.

## INTRODUCTION

The report discusses about the GERD which is becoming a disease of major concern and should be treated or cured for within appropriate time. Starting with brief explanation about and symptoms of GERD, further the available or proposed treatment of the disease is critically analysed. The critically analysis is supported by special circumstances and cases of occurrence of the GERD. The principles of nursing management and interventions in GERD are also explained in the section of Critical Analysis.

GERD, or gastroesophageal reflux disease, is a widespread clinical condition that affects many of people throughout the world. It is a disorder characterized by troubling indications and consequences caused by gastric contents refluxing into the esophagus.

About GERD: As gastroesophageal reflux disease (GERD) affects 20% of the people in developed nations, indications linked with the condition are prevalent. GERD is often diagnosed based on typical signs and an experimental trial's reaction to reflux regulation. This disease is a serious health problem since it is linked to a worse standard of living and severe death (Katz et al., 2013). Reduced physical discomfort, greater vigor, physical and emotional functionality, and mental health have all been linked to effective treatments of the GERD indications. Although the GERD drugs are not exceptionally costly, the expense incurred in curing the GERD sufferers has been estimated to be two times that of non-GERD sufferers (El-Serag et al., 2013).

GERD related Symptoms: Heat burn is the most typical and quintessential indication of GERD. Heartburn is a blistering feeling in the chest, extends to the throat due to overflow of acidic materials into the esophageal region. Reflux occurrences are evident in just a few number of cases.

Heartburn is frequently accompanied with a bitter sensation in the throat, even without refluxate vomiting (Jarosz & Taraszewska, 2014). GERD is one of the most prevalent causes of non-cardiac chest discomfort. It is essential to differentiate between the actual reason of the disturbances in the chest since there can be extremely significant consequences of such pain and different therapeutic approaches are available (Katz et al., 2013).

## **LITERATURE REVIEW**

Extraesophageal indications of GERD are also frequent but not usually diagnosed, despite the fact that the basic GERD indications can be clearly recognized. Extrusion into the larynx, which causes throat wiping and wheezing, are more probable to provoke extraesophageal complications in the body. Individuals suffering with GERD usually have a sense of heaviness or a bump in the bottom of their mouth, known as globus feel (Roberts et al., 2012). The reason of globus is unknown, however it has been assumed that absorption of acidic materials in the hypopharynx causes the upper esophageal sphincter (UES) to become more tonic. Additionally, the acid reflux can cause bronchospasm that can aggravate asthma symptoms such as coughing, discomfort, and congestion. Severe morning sickness is also common in GERD patients (Katz et al., 2013).

The sufferers should be examined for GERD-related warning indications which require complete intestinal assessment. Alerting signs might indicate an underlying cancer. In the absence of common GERD indications, the upper endoscopic procedural is not recommended (Eleftheriadis, 2017). Fatigue, hemorrhage, and loss of weight are some of the other warnings of the GERD. These indications can lower a person's happiness and negatively impact their wellbeing (Katz et al., 2013).

If not treated properly, this gastrointestinal disease can lead to esophagitis and Barrett's ulcer, among other significant consequences (Herregods et al., 2015). Chronic gastritis can be mild, moderate, or extreme, with serious conditions resulting in significant fissures, open wounds, and esophageal constriction. Stomach bleeding can also occur as a result of esophagitis. Fatigue, nausea or vomiting, coffee-ground distension, melena, and blood in the urine are all symptoms of upper stomach hemorrhage (Danisa M. Clarrett, 2022).

Prolonged esophageal irritation caused by the acid absorption can result in scarring and the formation of peptic constrictions, with dysphagia as the primary symptom. Barrett's esophagus, also known as intestinal metaplasia of the throat, is a condition in which the individuals experience recurrent fluid retention (Herregods et al., 2015). In Barrett's esophagus, the usual epithelial tissue present in the esophagus is displaced by columnar epithelial cells containing lobules, as a result to the acid absorption. Barrett's esophagus abnormalities can spread superiorly from the stomach and lead to the throat, hence early diagnosis is critical in the detection and treatment of further adversities in the body (Danisa M. Clarrett, 2022).

## **PATHOPHYSIOLOGICAL MECHANISMS AND EPIDEMIOLOGICAL STUDIES**

The pathogenesis of GERD is complex & involves changes in reflux exposure, resistance to epithelium and visceral sensitivity. The noxious material gastric refluxate injures the esophagus as well as elicits symptoms. Due to the presence of such complexities, the pathophysiology of GERD is not completely understood. The acid regurgitation and heartburn are the most common GERD symptoms although pathologic reflux results in to varieties of clinical presentations which includes non-cardiac chest pain among various other.

Significant threats for GERD include older age, overweight, nicotine and tobacco intake habits, stress, and lack of physical exercise. Food choices such as the diet containing acidic materials as well as the appetite and eating schedules especially of the night can all lead to GERD (El-Serag et al., 2013). Except when done post-prandially, daily exercises seems to be beneficial. Stomach acid is essentially a dysfunction of the lower esophageal sphincter (LES); however it can be caused by a variety of reasons. Metabolic as well as pathologic variables influence GERD. The most general reason is Transient lower esophageal sphincter relaxations (TLESRs) (Herregods et al., 2015).

## **CRITICAL ANALYSIS OF NURSING ASSESMENT, DIAGNOSIS AND CARE PLANNING**

It has also been recommended that the circumstances which contribute to the occurrence of TLESRs should be controlled. Consuming tobacco related products, strong alcohol drinking, large dinner, late-night snacking, and a higher nutritional fat consumption are all examples. Loss of weight is generally recommended for overweight GERD patients, but there is no evidence that it helps individuals who are healthy (Shapiro et al., 2012). Despite the fact that overweight possess a potential risk for GERD, most slimming operations aggravate the condition. It is also recommended that circumstances which contribute to the occurrence of TLESRs be limited or avoided. Smoking, strong alcohol drinking, large dinner, late-night snacking, and a higher nutritional fat consumption are all examples (Eleftheriadis, 2017). Weight loss is generally recommended for overweight GERD patients, but there is no evidence that it helps individuals who are healthy (El-Serag et al., 2013). Despite the fact that overweight is a potential risk for the GERD, most slimming operations aggravate the condition. Non-steroidal anti-inflammatory

medicines should also be avoided by all the GERD sufferers due to their involvement in affecting the biologic mucosal protective systems (Khan et al., 2012).

Treatment for GERD is aimed at reducing symptoms and decreasing acid reflux-related mucosal damage. Prokinetic medicines, instead of diluting the acidic contents, enhance emptying of the stomach and reduce esophageal valve tension. Cisapride (Propulsid) works by elevating the content of acetylcholine in the myenteric tract. These prokinetic medicines are not recommended very often due to the cholinergic adverse effects of bethanechol (Urecholine) and the negative impact of metoclopramide (Reglan) on the overall neuro function of the body (Roberts et al., 2012). Cisapride has been seen in clinical studies to be equally effective as H<sub>2</sub> inhibitors at reducing heartburn and mending the esophagus. Cisapride, on the other hand, needs regular administration and is associated with greater negative impacts and medication complications. The most common adverse effects of cisapride include stomach cramps and constipation (Shapiro et al., 2012).

While acid control is useful in the diagnosis of GERD, a strong link between GERD intensity and excess acidic materials in the stomach cannot be determined apart from Zollinger-Ellison disorder. Some of the reports says that administering a H<sub>2</sub> inhibitor in the night can help people suffering with GERD and are resistant to PPI treatment twice a day (Shapiro et al., 2012). When the indications of non-cardiac breathing difficulties are observed, a satisfactory clinical response to a short course of a PPI (Proton Pump Inhibitor) – once in a day for 2 weeks is regarded to corroborate the treatment. When a 24-hour acidity measuring device was adopted as the reference method, a testing of PPI medication for a shorter period cannot clearly confirm treatment of the GERD (latency 78 percent, precision 54 percent), a study stated (El-Serag et al., 2013). Additional

illnesses, such as eosinophilic esophagitis, prolonged emptying of the stomach, duodenogastric / bile reflux, capsule esophagitis, inflammatory bowel movements, psychiatric problems and Zollinger-Ellison indications needs to be examined in severe patients (Katz et al., 2013).

Although the function of prolonged emptying of the stomach is still disputed, people with digestive problems have been found to have a higher risk of reflux. Whereas a hiatal hernia seems to raise the chance of chronic reflux, individuals might have a hernia without regurgitation or regurgitation without a hernia (Khan et al., 2012).

In persons suffering with GERD, surgical operation has been found to give lengthy alleviation of problems. The conventional Nissen fundoplication operation has a ninety percent efficacy in the treatment. This procedure can be done laparoscopically. This operation has a comparable chance of success than any other alternatives available (El-Serag et al., 2013).

## **NURSING MANAGEMENT AND INTERVENTIONS**

### **a. Senior Citizens**

In the individuals above the age of 50, symptoms suggestive of GERD red flag, and endoscopic procedure should be considered initially. If backflow is still suspected as the primary reason after a negative endoscopy, the empirical treatment becomes necessary (Danisa M. Clarrett, 2022).

### **b. Pregnancy**



The tensile strain applied on the abdomen and intestinal system as the uterus expands causes indications leading to GERD is quite prevalent during pregnancy. GERD treatment during pregnancy typically includes a step-by-step procedure, beginning with adopting a healthy lifestyle along with intake of calcium capsules (Danisa M. Clarrett, 2022). H2RAs are also regarded as harmless in labor and can be used to relieve the discomfort if the above mentioned approaches did not work. PPIs might be tried if the indications continue after these attempts (care suggested during pregnancy; significant threat of teratogenicity based on the contradictory human research) (Khademi et al., 2012).

c. Atypical symptoms of GERD

GERD can be present as pulmonary (bronchitis, respiratory infection), laryngeal (laryngitis, globus, hoarseness, sinus infection, wheezing), or vascular (chest discomfort) indications, even without heartburn or vomiting and related disorders (Khan et al., 2012). Acid sensation of vagal afferent nerve cells in the distal esophagus causes non-cardiac discomfort in the chest and vagally-mediated bronchoconstriction or respiratory problems, as well as immediate interaction and micro aspiration of minute doses of toxic and harmful gastric fluid into the mouth and upper bronchial tubes provoking irritation and inflammation and sore throat. The reason of laryngitis complaints and coughing has been linked to larynx neuroma (Danisa M. Clarrett, 2022).

## **APPLICATION OF KNOWLEDGE**

Persons suffering with Patients with GERD should be examined for alarming symptoms, which should necessitate immediate endoscopic assessment. If there are no warning signals, the first line of treatment for GERD should be positive changes. It is crucial to remember, nevertheless, that the

large number of reports addressing GERD way of living and dietary modifications have been underpowered. Despite this, lifestyle adjustments are still the priority while doing treatment for the GERD, with the foremost objective being symptom relief and improved standard of living. Head of bed (HOB) elevation is the only validated behavioral adjustment for GERD treatment. In individuals with supine GERD, HOB elevation has been proven to lower esophageal acid absorption and removal time leading to the improvement in the health. If conventional treatment fails or GERD problems get worse, surgical operation may be suggested. Failure to comply, incapacity to purchase medicines, recurrence of disorders shortly after the discontinuation of drugs or reappearance of problems despite continued taking of medicines are the probable reasons of the failure of conventional methods of treatment of GERD. Severe hiatal hernia, pulmonary hypertension signs, Barrett's esophagus, recurring esophageal constrictions and acute esophagitis are all potential complications.

## **CONCLUSION**

GERD is a prominent physiological that can cause severe damage and worsen the person's wellbeing. Early detection of GERD indications is critical for avoiding consequences. Medication for it still relies on behavioral modifications and breakthroughs in acid regulation. GERD characteristics differ from individual to individual, and there are a lot of screening procedures and therapies available. Treatment for GERD is aimed at reducing symptoms and decreasing acid reflux-related mucosal damage. Due to the wide range of indications and higher incidence of GERD, the concerned doctors and medical advisors must be familiar with the indications, assessment, and treatment options (Danisa M. Clarrett, 2022).

## REFERENCES

- Danisa M. Clarrett, C. (2022). *Gastroesophageal Reflux Disease (GERD)*. PubMed Central (PMC). Retrieved 14 May 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6140167/>.
- Eleftheriadis, N. (2017). Endoscopic Treatment of GERD and Case Report: Successful Anti-Reflux Mucosectomy (ARMS) For Endoscopic Treatment of PPI-Resistant GERD in A 24-Years-Old Greek. *Advanced Research In Gastroenterology & Hepatology*, 3(1). <https://doi.org/10.19080/argh.2017.03.555602>
- El-Serag, H., Sweet, S., Winchester, C., & Dent, J. (2013). Update on the epidemiology of gastro-oesophageal reflux disease: a systematic review. *Gut*, 63(6), 871-880. <https://doi.org/10.1136/gutjnl-2012-304269>
- Epi-GERD Study: Epidemiological Evaluation in Patients With Gastro-Esophageal Reflux Disease (GERD). (2019). <https://doi.org/10.31525/ct1-nct04094402>
- Evidence-based recommendations for GERD treatment. (2013), 38(8), 34-35. <https://doi.org/10.1097/01.npr.0000433052.44407.6a>
- Herregods, T., Bredenoord, A., & Smout, A. (2015). Pathophysiology of gastroesophageal reflux disease: new understanding in a new era. *Neurogastroenterology & Motility*, 27(9), 1202-1213. <https://doi.org/10.1111/nmo.12611>

- Jarosz, M., & Taraszewska, A. (2014). Risk factors for gastroesophageal reflux disease – the role of diet. *Gastroenterology Review*, 5, 297-301. <https://doi.org/10.5114/pg.2014.46166>
- Katz, P., Gerson, L., & Vela, M. (2013). Guidelines for the Diagnosis and Management of Gastroesophageal Reflux Disease. *American Journal Of Gastroenterology*, 108(3), 308-328. <https://doi.org/10.1038/ajg.2012.444>
- Khademi, H., Radmard, A., Malekzadeh, F., Kamangar, F., Nasser-Moghaddam, S., & Johansson, M. et al. (2012). Diagnostic Accuracy of Age and Alarm Symptoms for Upper GI Malignancy in Patients with Dyspepsia in a GI Clinic: A 7-Year Cross-Sectional Study. *Plos ONE*, 7(6), e39173. <https://doi.org/10.1371/journal.pone.0039173>
- Khan, B., Sodhi, J., Zargar, S., Javid, G., Yattoo, G., & Shah, A. et al. (2012). Effect of bed head elevation during sleep in symptomatic patients of nocturnal gastroesophageal reflux. *Journal Of Gastroenterology And Hepatology*, 27(6), 1078-1082. <https://doi.org/10.1111/j.1440-1746.2011.06968.x>
- Med.umich.edu. (2022). Retrieved 14 May 2022, from <https://www.med.umich.edu/1info/FHP/practiceguides/gerd/gerd.12.pdf>
- Meining, A., & Classen, M. (2000). The Role of Diet and Lifestyle Measures in The Pathogenesis and Treatment of Gastroesophageal Reflux Disease. *American Journal Of Gastroenterology*, 95(10), 2692-2697. <https://doi.org/10.1111/j.1572-0241.2000.03175.x>
- Roberts, J., Aravapalli, A., Pohl, D., Freeman, J., & Castell, D. (2012). Extraesophageal gastroesophageal reflux disease (GERD) symptoms are not more frequently associated

with proximal esophageal reflux than typical GERD symptoms. *Diseases Of The Esophagus*, 25(8), 678-681. <https://doi.org/10.1111/j.1442-2050.2011.01305.x>

Shapiro, M., Simantov, R., Yair, M., Leitman, M., Blatt, A., Scapa, E., & Broide, E. (2012). Comparison of central and intraesophageal factors between gastroesophageal reflux disease (GERD) patients and those with GERD-related noncardiac chest pain. *Diseases Of The Esophagus*, 25(8), 702-708. <https://doi.org/10.1111/j.1442-2050.2011.01317.x>