to 95.2%) in the adherence to each of the 17 methodologic standards (Table 1). The highest adherence was found for studies containing a clear description of study objective or hypothesis (95%) and protection of confidentiality (88%). The lowest adherence to methodologic standards was found for abstractor blinding to hypothesis (3%), plan for missing data (4%), and testing of interrater reliability (7%). Over half of the protocols (56.1%) were sent back to PIs for revisions prior to final approval. Interrater reliability was calculated across the 17 methodologic criteria; the consistency of the data recording was excellent, with a median kappa statistic of 0.89.

Table 1
Retrospective protocols that adhered to methodologic standards.

	Proportion	95% CI
Clear hypothesis or aim	95.2%	91.9–98.5
Confidentiality measures	87.9%	82.9–92.9
Intervention described	87.7%	81.5–94.0
Case selection criteria	79.9%	73.8–86.0
Abstraction forms included	78.2%	71.9–84.5
Diagnostic methods explained	66.1%	57.9–74.3
Comparison group defined	60.0%	48.5–71.5
Medical database identified	54.0%	46.4–61.7
Definition of study variables	49.7%	42.1–57.3
Participating institutions listed	49.4%	41.6–57.2
Sampling method described	45.6%	37.8–53.4
Sample size calculated	35.6%	28.2–43.0
Training of abstractors described	13.4%	8.1–18.7
Monitoring of abstractor performance	8.4%	4.0–12.8
Interrater reliability tested	7.2%	3.1–11.3
Missing-data plan	3.7%	0.8–6.6
Abstractors blind to hypothesis	2.6%	0.1–5.1

Retrospective research studies continue to comprise a significant proportion of original research in academic medical centers. If the criteria used in this study are reasonable indicators of scientific validity, our findings suggest that greater effort should be made to improve the methodologic quality of retrospective protocols. Adherence was below 50% for 9 of the 17 criteria assessed (Table 1). These findings are similar to reports assessing the methodologic quality of medical record review studies published in emergency medicine journals [4-6]. Education for researchers to improve protocol writing and adherence to agreed-upon methodologies to promote accurate, thorough and useful research is of utmost importance. Investigators must recognize the limitations and challenges of the medical record and take steps to add rigor to the data collection process.

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References

[1] Panacek EA. Performing chart review studies. Air Med J 2007;26(5):206–10.
[2] Allison JJ, Wall TC, Spettell CM, et al. The art and science of chart review. Jt Comm J Qual Improv 2000;26(3):115–36.
[3] Worster A, Bledsoe RD, Cleve P, et al. Reassessing the methods of medical record review studies in emergency medicine research. Ann Emerg Med 2005;45(4):448–51.
[4] Worster A, Haines T. Advanced statistics: understanding medical record review (MRR) studies. Acad Emerg Med 2004;11(2):187–92.
[5] Gilbert EH, Lowenstein SR, Koziol-McLain J, Barta DC. Chart reviews in emergency medicine: where are the methods? Ann Emerg Med 1996;27(3):305–8.
[6] Babcock D, Kelly A, Kerr D, Reade T. The quality of medical record review studies in the international emergency medicine literature. Ann Emerg Med 2005;45(4): 444–7.

Reply to the Letter titled "Platelet indices may not be associated with diagnosis and prognosis of gastrointestinal bleeding"

I've read the letter titled "Platelet indices may not be associated with diagnosis and prognosis of gastrointestinal bleeding", which was sent by an esteemed reader, with great interest.

The reader points out that the preanalytical and analytical factors are of great importance for concluding the hemogram measurements normal. It is expressed that complete blood counts should be carried out by taking this factors into consideration in the abnormal hemogram results. As expressed by our reader, many factors play a role in the healthy measurement of complete blood count. Therefore, in patient selection, complete blood counts are repeated for a second time for the purpose of confirming the results in those patients with abnormal platelet count, and the patients demonstrating similar results are included in the study. The patients who have a significant difference between the first and second measurements are not included in the study. We are sorry that we did not include this detail in the method part of the study.

The second criticism of the reader is that mean platelet volume (MPV) is not suitable for use to determine a clinical situation since its standardization cannot be performed. This parameter is studied using the same brand devices and same parameters in our hospital. And platecrit calculated with MPV levels are measured as explained above. Here, we express that platelet indices measured with the same method and standard may be related to gastrointestinal bleeding diagnosis and prognosis. That is, there is a probability here. Taking into consideration the speculations made towards this result in the discussion of our study, changes may occur in the platelet indices in the event of gastrointestinal bleeding physiopathologically.

Indeed, there are tens of studies in the literature, reporting the relation of platelet indices with clinical situations [1-7].

Disclosure of conflict of interest

The authors declare that they have no conflict of interest.

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References

[1] Mese T, Guven B, Yilmazer MM, Karadeniz C, Ozdemir R, Doksoz O. Platelet activation markers in children with congenital heart disease associated with pulmonary arterial hypertension. Congenit Heart Dis 2018.

[2] Li J, Sheng X, Cheng D, Wang F, Jian G, Li Y, et al. Is the mean platelet volume a predictive marker of a high in-hospital mortality of acute cardiorenal syndrome patients receiving continuous renal replacement therapy? Medicine 2018;97:e11180.

[3] Nakao Y, Tanigawa T, Kano F, Tanaka H, Katahira N, Ogawa T, et al. Diagnostic role of mean platelet volume in tonsillitis with and without peritonsillar abscess. J Laryngol Otol 2018:1–4.

[4] Ates I, Bulut M, Ozkayar N, Dede F. Association between high platelet indices and proteinuria in patients with hypertension. Ann Lab Med 2015;35:630–4.

[5] Akpinar MY, Ozin YO, Kaplan M, Ates I, Kalkan IH, Kilic ZMY, et al. Platelet-to-lymphocyte ratio and neutrophil-to-lymphocyte ratio predict mucosal disease severity in ulcerative colitis. J Med Biochem 2018;37:155–62.

[6] Kaplan M, Ates I, Yuksel M, Arikan MF, Aydog G, Turhan N, et al. The role of the PLR–NLR combination in the prediction of the presence of *Helicobacter pylori* and its associated complications. Saudi J Gastroenterol 2018;31(5):1–6.

[7] Ates H, Ates I, Kundi H, Yilmaz FM. Diagnostic validity of hematologic parameters in evaluation of massive pulmonary embolism. J Clin Lab Anal 2017;31:e22072.

Generalized anxiety disorder among emergency department patients

Mental illness is common among the US population with an overall estimated 8% prevalence. Previous studies have estimated undiagnosed mental illness in the ED at 41–42%, with only a minority identified by the treating physician [1,2].

Generalized anxiety disorder, or GAD, is defined using DSM-5 criteria as Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance) [3]. A brief screening tool has been studied for screening for anxiety, the Generalized Anxiety Disorder 7-item (GAD-7) scale [4-8]. This tool has demonstrated good reliability, as well as criterion, construct, factorial, and procedural validity. A score of 8 or greater suggests the diagnosis of generalized anxiety disorder.

Between 2009 and 2011, there were an estimated 1.2 million anxiety related ED visits in the US annually (approximately 1% of ED visits) [9]. The DSM-5 defines anxiety as: Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance) [3].

This study was undertaken to identify the prevalence of generalized anxiety disorder among participants, including diagnosed anxiety and positive screening for anxiety, and factors potentially associated with anxiety, including pain, gender, age, and ethnicity.

This prospective patient survey study was conducted at Miami Valley Hospital Emergency Department (ED), an urban hospital in Dayton, OH. The study received exempt status from the Wright State University Institutional Review Board. Trained research assistants administered the GAD-7 survey as a convenience sample from September 2017 to March 2018. Eligible participants included ED patients age 18 and over, with a triage pain score of 1 or higher.

Among 320 participants, a significant minority of participants (30%; N = 97) had a previous diagnosis of anxiety on their medical record. The median GAD-7 score was 8. A majority (55%; N = 175) of participants had a GAD score ≥ 8, meeting criteria for generalized anxiety disorder (Fig. 1). Table 1 illustrates responses to items on the GAD-7.

Factors associated with GAD-7 score of 8 or more included younger age (p = 0.02, Mann-Whitney-Wilcoxon), previous diagnosis of anxiety (p = 0.05, Mann-Whitney-Wilcoxon), and ED disposition of hospital admission (p = 0.04, Kruskal-Wallis). Gender, ethnicity, and triage pain scores were not significantly associated with GAD-7 criterion for anxiety.

In conclusion, a majority of ED patients in this study met screening criteria for generalized anxiety disorder. A minority of those screened had a previous diagnosis of anxiety. Younger age, previous diagnosis of anxiety, and hospital admission were associated with generalized anxiety disorder. These results highlight the importance of recognition and treatment of generalized anxiety disorder among ED patients.
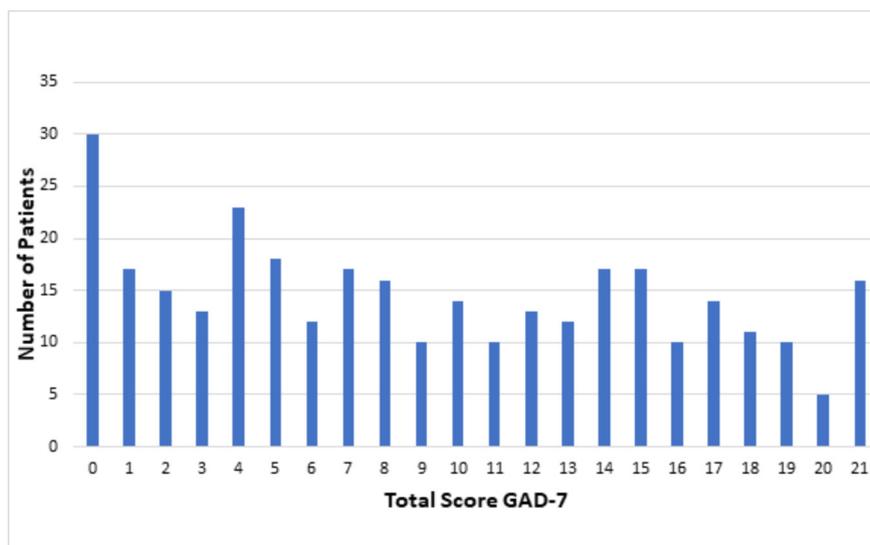

Fig. 1. Distribution of GAD-7 scores among 320 ED patients.