

COMMENTARY

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How should nonspecific complaints be defined? Comment to: “nonspecific complaints (NSCs) in the emergency department”

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Dear Editor,

With great interest we have read the recent systematic review on “Nonspecific Complaints (NSCs) in the Emergency Department” [1] and would like to comment on two key aspects: First, we agree that NSCs should be considered a major emergency presentation. Different nomenclatures have been used in the past, such as “homecare impossible”, “unexplained symptoms”, “general disability”, “atypical symptoms”, and “nonspecific functional decline” (for review, see [2]). This diversity has not been helpful for a clinical definition or clinical research on nonspecific complaints [3]. Second, the authors did not present any definition of nonspecific complaints, but included studies using varying definitions from very different settings, such as Emergency Medical Services (EMS).

However, NSCs were first defined by Nemeč et al [4]. This original definition was based on the inclusion of patients in need of external resources, excluding patients with life-saving interventions. The original BANC studies excluded hemodynamically unstable patients (i.e. Emergency Severity Index (ESI) level 1; patients in need of life-saving interventions), as the work-up of shock is standardized. Similarly, the lowest triage categories were excluded as well, as these patients can usually be managed as see-and-treat outpatients and are not at risk for adverse outcomes. The rationale to focus on these patients is the lack of a standardized work-up, the high use of resources, and the risk of adverse outcomes [5–8]. All

publications originating from the prospective multicenter Basel Nonspecific Complaints (BANC) cohorts used the above definition of NSCs [9–12], but other studies have used varying criteria to define NSCs [13]. There is an inherent difference regarding inclusion criteria between the studies considered by the present systematic review, e.g., some of the included studies were retrospective, and one study [14] has used a post-hoc classification of nonspecific complaints [15].

Surprisingly, the original publication by Nemeč et al. [4], coining the term, was excluded from the present systematic review. We believe that this was based on arbitrary inclusion criteria. The argument to exclude studies deliberately focusing on certain triage categories does not seem valid unless an alternative, stringent definition of NSCs is used.

Therefore, we suggest that further research should be based on a common definition of nonspecific complaints in emergency presentations, in order to reduce heterogeneity of studies.

Abbreviations

NSCs: Nonspecific complaints; BANC study: Basel nonspecific complaints study; ESI: Emergency severity index

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NA

Authors' contributions

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NA

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NA

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NA

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We perform symptom-oriented research and are editors of www.medstandards.com

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References

- Kemp K, Mertanen R, Lääperi M, Niemi-Murola L, Lehtonen L, Castren M. Nonspecific complaints in the emergency department - a systematic review. *Scand J Trauma Resusc Emerg Med.* 2020;28(1):6.
- Bingisser R, Nickel CH. The last century of symptom-oriented research in emergency presentations--have we made any progress? *Swiss Med Wkly.* 2013;143:w13829.
- Nickel CH, Malinowska A, Bingisser R. Should weakness be subsumed to nonspecific complaints?-correspondence in response to Bhalla et al. *Am J Emerg Med.* 2015;33(5):722-3.
- Nemec M, Koller MT, Nickel CH, Maile S, Winterhalder C, Karrer C, Laifer G, Bingisser R. Patients presenting to the emergency department with non-specific complaints: the Basel non-specific complaints (BANC) study. *Acad Emerg Med.* 2010;17(3):284-92.
- Nickel CH, Messmer AS, Geigy N, Misch F, Mueller B, Dusemund F, Hertel S, Hartmann O, Giersdorf S, Bingisser R. Stress markers predict mortality in patients with nonspecific complaints presenting to the emergency department and may be a useful risk stratification tool to support disposition planning. *Acad Emerg Med.* 2013;20(7):670-9.
- Nickel CH, Ruedinger JM, Messmer AS, Maile S, Peng A, Bodmer M, Kressig RW, Kraehenbuehl S, Bingisser R. Drug-related emergency department visits by elderly patients presenting with non-specific complaints. *Scand J Trauma Resusc Emerg Med.* 2013;21:15.
- Peng A, Rohacek M, Ackermann S, Ilsemann-Karakoumis J, Ghanim L, Messmer AS, Misch F, Nickel CH, Bingisser R. The proportion of correct diagnoses is low in emergency patients with nonspecific complaints presenting to the emergency department. *Swiss Med Wkly.* 2015;145:w14121.
- Nickel CH, Ruedinger J, Misch F, Blume K, Maile S, Schulte J, Köhrlé J, Hartmann O, Giersdorf S, Bingisser R. Copeptin and peroxiredoxin-4 independently predict mortality in patients with nonspecific complaints presenting to the emergency department. *Acad Emerg Med.* 2011;18(8):851-9.
- Karakoumis J, Nickel CH, Kirsch M, Rohacek M, Geigy N, Müller B, Ackermann S, Bingisser R. Emergency presentations with nonspecific complaints-the burden of morbidity and the Spectrum of underlying disease: nonspecific complaints and underlying disease. *Medicine (Baltimore).* 2015;94(26):e840.
- Jenny MA, Hertwig R, Ackermann S, Messmer AS, Karakoumis J, Nickel CH, Bingisser R. Are mortality and acute morbidity in patients presenting with nonspecific complaints predictable using routine variables? *Acad Emerg Med.* 2015;22(10):1155-63.
- Malinowska A, Nickel CH, Bingisser R. Trajectories of survival in patients with nonspecific complaints. *Eur J Intern Med.* 2018;55:e17-8.
- Nickel CH, Messmer AS, Ghanim L, Ilsemann-Karakoumis J, Giersdorf S, Hertel S, Ernst S, Geigy N, Bingisser R. Adrenomedullin for risk stratification of emergency patients with nonspecific complaints: an interventional multicenter pilot study. *Medicine (Baltimore).* 2016;95(1):e2395.
- Quinn K, Herman M, Lin D, Supapol W, Worster A. Common diagnoses and outcomes in elderly patients who present to the emergency department with non-specific complaints. *Cjem.* 2015;17(5):516-22.
- Sauter TC, Capaldo G, Hoffmann M, Birrenbach T, Hautz SC, Kämmer JE, Exadakylos AK, Hautz WE. Non-specific complaints at emergency department presentation result in unclear diagnoses and lengthened hospitalization: a prospective observational study. *Scand J Trauma Resusc Emerg Med.* 2018;26(1):60.
- Bingisser R, Nickel CH. Comment to: non-specific complaints at emergency department presentation result in unclear diagnoses and lengthened hospitalization: a prospective observational study. *Scand J Trauma Resusc Emerg Med.* 2018;26(1):99.

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