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EDITORIAL

Considerations on the low adherence to clinical practice guidelines[☆]

Consideraciones sobre la baja adherencia a las guías de práctica clínica

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Received 30 March 2017; accepted 2 April 2017

The application of scientific advances in the clinical practice is the biggest challenge of all medical fields. A study of 2003 on the level of adherence to clinical practice recommendations showed that only 55 per cent of all measures recommended were ultimately applied to patients.¹ One decade has gone by and things have not changed significantly. In the case of severely traumatized patients there is not too much information about it, and the information available reveals that the implementation of scientific evidence can be improved significantly.² Something similar happens with sepsis; some studies show that yet despite a wide media campaign, less than 20 per cent of the measures recommended by the Surviving Sepsis Campaign were really implemented, even after an important specific educational effort, this percentage only reached 38 per cent.³ We could jump into discussing other medical fields but we would probably see the same results, which leads us to the conclusion that what is considered as the "standard therapy", that is, the treatment that is recommended based on the available scientific evidence has, in many cases, the potential to be improved.

[☆] Please cite this article as: Fernández Mondéjar E. Consideraciones sobre la baja adherencia a las guías de práctica clínica. Med Intensiva. 2017;41:265–266.

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There are multiple reasons that may explain the low level of adherence to the recommendations made by clinical guidelines. In intensive medicine, there is no doubt that one important factor is the complexity of the process or the patient's comorbidities. When one patient suffers from a specific condition without further complications, and when only one or two clinical guidelines may be applied, the implementation of such guidelines is usually very high,⁴ which could well be the case of patients with isolated pulmonary embolisms, thrombolysis-associated strokes, or patients with myocardial infarctions due to coronary procedures, etc. Nevertheless, when dealing with patients with multi-systemic affection and the implementation of several clinical guidelines is a possibility, the level of adherence to such guidelines drops exponentially.⁴ One example of this situation may be anticoagulated patients with atrial fibrillation and intracranial haemorrhages who need mechanical ventilation and whose clinical course is complicated by sepsis, malnutrition, renal function impairment, need for vasoactive drugs... In this case, the presence of multiple clinical issues and, on some occasions, the incompatibility among them poses real therapeutic dilemmas that make the physician prioritize without having the certainty that the chosen path will be the right path. Under these circumstances, the intensivist needs to focus on life-threatening issues and ignore others that may not be so urgent.

There are other factors that should be taken into consideration and, although being aware of these factors may be uncomfortable, we should discuss them openly because

in my opinion they contribute to the low applicability of the recommendations. I am talking about a certain crisis of credibility in the research process due to the publication of findings that will eventually prove uncertain, wrong, or irreproducible.⁵ The reproducibility of the most highly cited papers barely reaches 25 per cent.⁶ At present, the publication of manuscripts sometimes responds to interests that go beyond the scientific interests, which affects the credibility of "scientific evidence". This situation has come to a point where there are authors who think that since there are so many researches of low credibility, the priority should be the assessment and reproducibility of such researches rather than making new discoveries.^{6,7}

Yet despite these setbacks, we have to admit that in the last two or three decades there have been significant scientific advances that have improved healthcare in most medical fields. Such scientific advances are arranged into sets of guidelines or recommendations that are an invaluable asset for the clinician. It is important to remember that when the scientific evidence has been confirmed, its application is associated with better prognosis,^{8,9} this is the reason why its implementation should be a priority not only for healthcare providers (physicians, nurses, etc.) but also for the institutions that one way or another are responsible for the patients' healthcare. The Spanish Society of Intensive and Critical Care Medicine and Coronary Units is aware of this issue and promotes the implementation of the recommendations attached to this editorial.¹⁰ The goal is to collect interventions that proved to be useful, disseminate them among intensivists and collaborate in their implementation. The ultimate goal is to contribute to improving critical patients' healthcare. We should remember that the implementation of these "recommendations" and any clinical guidelines is not some mechanical process where one given circumstance is followed by one certain answer as some sort of mandatory dogma or uniform approach for the management of patients.¹¹ On the contrary, our goal is to provide an updated informative framework that will eventually help clinicians make the most adequate individualized decision for each patient. It is the responsibility of the physician who manages this or that clinical problem to assess not only the available medical literature but also other sources of knowledge such as the physician's own experience, the peculiarities, the circumstances of each patient, the preferences from patients or families and any other aspects that may be a factor in the decision-making process. Also, we should not forget that, sometimes, scientific

truths are merely transient and what today is indicated may not be indicated in the near future. This is why periodic re-evaluations of any recommendations are a must. Also, the dynamic nature of scientific production will lead to new findings susceptible to be included in our therapeutic armamentarium, which is why these recommendations should be evaluated periodically to confirm their validity or implement new aspects.

References

1. McGlynn EA, Asch SM, Adams J, Keesey J, Hicks J, DeCristofaro A, et al. The quality of health care delivered to adults in the United States. *N Engl J Med.* 2003;348:2635–45.
2. Shafi S, Barnes SA, Millar D, Sobrino J, Kudyakov R, Berryman C, et al. Suboptimal compliance with evidence-based guidelines in patients with traumatic brain injuries. *J Neurosurg.* 2014;120:773–7.
3. Levy MM, Dellinger RP, Townsend SR, Linde-Zwirble WT, Marshall JC, Bion J, et al. The Surviving Sepsis Campaign: results of an international guideline-based performance improvement program targeting severe sepsis. *Intensive Care Med.* 2010;36:222–31.
4. Leone M, Ragonnet B, Alonso S, Allaouchiche B, Constantin JM, Jaber S, et al. Variable compliance with clinical practice guidelines identified in a 1-day audit at 66 French adult intensive care units. *Crit Care Med.* 2012;40:3189–95.
5. Ioannidis JP. Why most clinical research is not useful. *PLoS Med.* 2016;13:e1002049.
6. Ioannidis JP. Acknowledging and overcoming nonreproducibility in basic and preclinical research. *JAMA.* 2017;317:1019–20.
7. Munafò MR, Nosek BA, Bishop DVM, Button KS, Chambers CD, Percie du Sert N. A manifesto for reproducible science. *Nat Hum Behav.* 2017, <http://dx.doi.org/10.1038/s41562-016-0021>
8. Shafi S, Rayan N, Barnes S, Fleming N, Gentilello LM, Ballard D. Moving from optimal resources to optimal care at trauma centers. *J Trauma Acute Care Surg.* 2012;72:870–7.
9. Ferrer R, Artigas A, Levy MM, Blanco J, González-Díaz G, Garnacho-Montero JET-AL>, Edusepsis Study Group. Improvement in process of care and outcome after a multicenter severe sepsis educational program in Spain. *JAMA.* 2008;299:2294–303.
10. Hernández-Tejedor A, Peñuelas O, Sirgo Rodríguez G, Llompart-Pou JA, Palencia Herrejón E, Estella A, et al. Recomendaciones para el tratamiento de los pacientes críticos de los Grupos de Trabajo de la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMICYUC). *Med Intensiva.* 2017, <http://dx.doi.org/10.1016/j.medin.2017.03.004>
11. Jaeschke R, Guyatt GH. Ten things you should consider before you believe a clinical practice guideline. *Intensive Care Med.* 2015;41:1340–2.