

University of Groningen

## Look Back, Look Forward, but Use a Fresh Look

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*Published in:*  
Critical Care Medicine

*DOI:*  
[10.1097/CCM.0000000000005369](https://doi.org/10.1097/CCM.0000000000005369)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2022

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

Zijlstra, G. J., Zijlstra, H. W., & Zijlstra, J. G. (2022). Look Back, Look Forward, but Use a Fresh Look. *Critical Care Medicine*, 50(3), E334-E334. <https://doi.org/10.1097/CCM.0000000000005369>

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# Look Back, Look Forward, but Use a Fresh Look

To the Editor:

An anniversary is an excellent moment for reflection. The 50th birthday of the Society of Critical Medicine is such a moment and is celebrated by a series of articles in this Journal. Dellinger et al (1) describe the development of critical care, especially in relation to sepsis, and state in the title that it has been a long and winding road. This is an important message from history. We are in unexplored territory, and a straight road to the ultimate goal of better patient care is elusive. However, if we can cut some loops, progression would be much faster. Then, we have to look at what causes these loops. A major reason is the adoption and deoption process of hypotheses and therapies (2). It has cost us decades to realize that sepsis is a heterogeneous collection of diseases covered by a disputable definition. We are only now starting to think of other statistical methods than the holy grail of the randomized controlled trial after spending billions of dollars and several decades of failed trials (3–5). Many still think that the sequence is infection, inappropriate immune response, organ failure, and death. However, the causal link between immune response and organ failure, and between organ failure and death is largely missing. That we can measure the immune status and can manipulate it in a positive way is more belief than science, especially with a single drug. Belief is a peculiar matter in critical care. It usually costs only one study published in a high-ranking journal to cause belief and wide spread adoption. Several years later, three studies are required to reach some disbelief, for example, early goal-directed therapy and glucose control.

The 50th anniversary is a moment many early day intensivists retire. We believe that it is also an excellent occasion for introspection. Maybe we might even need help from outside to analyze how we do research and to point out tunnel vision. The adoption and deoption process should be critically evaluated. If we provide the next generation of critical care doctors with a better research structure and therapy implementation methods, enormous progress could be made. Maybe they can look back at a next anniversary (preferably not the 100th) on a shorter road reaching further goals.

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The authors have disclosed that they do not have any potential conflicts of interest.

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DOI: 10.1097/CCM.0000000000005369