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Editorial

Usefulness of the CPG in the management of severe *S. aureus* infections



Utilidad de las Guías de Práctica Clínica para el manejo de las infecciones graves producidas por *Staphylococcus aureus*

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Staphylococcus aureus bacteremia (SAB) is not only an indicator of infection control performance in healthcare institutions. Its incidence per admission particularly when counting nosocomial and community-onset healthcare-associated cases can be used for infection control quality assessment, and this has been done so in Australian hospitals, for example.^{1,2} SAB outcomes also are a proxy measure of infection management quality in healthcare institutions. The disease is frequent and (too) frequently lethal.³ It requires much of our coordinated and interdisciplinary skills and efforts to provide best-available infection management and to improve patient care and safety. In fact, only with intensive diagnostic work-up including imaging and microbiological testing, interdisciplinary discussion, timely surgical interventions if indicated and feasible, clinical monitoring and individualized antimicrobial drug therapy adapted to findings usually available only after several days will it be possible to significantly improving outcomes.

To make it therefore short here: my disappointment with this new SEIMC guidance document⁴ is that infectious disease consultation has not been given a level A recommendation. In my view, the evidence from the literature in the sense of improved survival of SAB patients after infectious disease consultation is immense although not being first-class evidence and coming “only” from observational and quasiexperimental studies rather than randomized trials. Recent additions to the field from multicenter trials confirm many single-center observations and clearly demonstrate a survival benefit after infectious disease consultation.^{5,6} The SEIMC document authors have consented and offer quite a lot of level A recommendations (I counted 28) of which most again were not class I evidence, but class II and even class III! So, why not scoring the infectious disease consultation recommendation level A if this has reproducibly been associated with improved survival in many studies in different settings? What more is needed for an upgrade

that the authors have made many times based on less clear data and softer endpoints?

To make it short again: I am not disappointed at all but rather happy that, unlike the recent endocarditis practice guideline from the European Society of Cardiology (ESC),⁷ there is no recommendation in this SEIMC document to use high-dose trimethoprim-sulfamethoxazole plus clindamycin as an option for *S. aureus* endocarditis. This recommendation, based on class II/III evidence from France,⁸ was given level B in the ESC guideline, but I am concerned and uncertain whether it merits this level. It is not mentioned at all in the new US American endocarditis guideline.⁹ I consider that option as highly experimental, and would not use it in my patients except perhaps in exceptionally unusual situations.

To make it short a third time: I sense that the SEIMC document strongly favors high-dose daptomycin for quite a number of SAB complications (which I like when vancomycin would be the alternative), strongly favors combinations with fosfomycin rather than with rifampicin which might be based on regional experience and experimental animal data and less on evidence from clinical trials (which I think is OK though scientifically essentially uncertain). There are several level A recommendations related to high-dose daptomycin (I counted 5 whereas 3 other level A therapeutic recommendations were related to dicloxacillin, and none were related to alternative possible backbone drugs such as vancomycin, linezolid or cefazolin). I am not sure whether the scientific evidence truly allows such a downgrading (in particular of vancomycin) but I tend to agree to this view, and in daily practice we in Freiburg tend to recommend high-dose daptomycin as an alternative backbone drug in most cases with evolving SAB complications although this is off-label and (still) expensive. Thanks for giving me support in writing in this respect for everyday discussions at the bed-side and in clinical conferences, for example with cardiac surgeons. But I know many colleagues will argue with us and with the Spanish colleagues at this point.

We could now discuss details of the SEIMC guideline, for example, the dosage of rifampicin and of fosfomycin, the suitability of oral amoxicillin/clavulanate for step-down therapy, the relevance of detailed vancomycin MIC testing for decision-making (if

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it is second-line anyway), etc. But I won't do this. There have been too few studies in the field to allow firm conclusions on a number of questions, but still, we have the responsibility to take therapeutic decisions in the absence of clear answers from the literature. Given the scarcity of up-to-date international practice guidelines in the field, the SEIMC is to be congratulated to provide this in-depth, comprehensive and timely guidance document on diagnosis and management of SAB. It makes very clear that the care of patients with SAB requires alertness, laboratory infrastructure and preparedness for interdisciplinary work and dialogue, much clinical expertise and quality management. I do believe that most patients benefit from individualized treatment which is best provided through infectious disease consultation. I do believe that organizations such as SEIMC will be successful and others need to draw attention to this disease and clarify essential and key components of care for SAB in all its facets. I also do believe that hospitals should invest in and measure components of quality SAB care and management, and make this information publicly available.

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