Iii consenso internacional de sepsis y shock séptico 2016 pdf

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Definitions• Sepsis is a life-threatening organic dysfunction caused by deregulation of the inflammatory response to infection. • Organic dysfunction can be identified as an acute change in SEQUENTIAL Organ Failure Assessment (SOFA) resulting greater than or equal to two points as a result of infection. • Patients with suspected infection who may have weight criteria can be quickly identified using Quick SOFA (qSOFA). QSOFA assesses mental abnormality, systerical pressure < 100 mmHg and respiratory > 22. • In septic shock, circulatory abnormalities and cellular metabolism are sufficient to significantly increase mortality within the sepsis group. • Septic shock is defined as sepsis with permanent hypotension requiring vasopressors to maintain average blood pressure (PAM) > 65 mmHg and with serum lactate >2 mmol/L despite adequate fluid reamination. The limitations of the Working Party have not reached an absolute consensus on all the points concerned. SOFA and qSOFA do not seek to define sepsis themselves; if those criteria are not met and sepsis is suspected, this should be done. Lactate can be used or not to define septic shock, depending on availability in each center, because it is sensitive but not a specific measurement and also reflects cellular stress, not just shock. These definitions were created for use in adults, which would include the re-application of definitions in pediatrics. Conclusions Updated definitions and clinical criteria facilitate early identification of patients with sepsis or those at risk of developing sepsis. A further revision of the definitions is needed. Funding and conflict of interest: funded by the SCCM Critical Care Society) and the European Society for Intensive Care Medicine (ESICM). But Conflicts of Interest CommentDesde tried to define sepsis in an objective way a few years ago. The first attempt was in 1991 to interpret sepsis as an inflammatory response caused by infection and to establish criteria for inflammatory systemic response syndrome (SIRS)1 in search of targets. These criteria proved non-specific and failed to identify patients who would develop a worse prognosis against infection. In 2001, there was a failed attempt at redefinition2, in which more SIRS criteria were added, making the definition of this entity even more non-sex. The problem with the sirs-based definition of sepsis is that these criteria apply to both infectious and non-infectious cheeseS3 . This new consensus revised the classic definitions to identify patients who would have the highest mortality and who require hospitals in critical care units. In this context, a new definition of sepsis is emerging as the deregulation of sirS by an infectious cause that creates organic faults and endangers life, thus leaving the old distinction between sepsis and severe sepsis4. To assess organic failures decide to take the SOFA score as a popularly used rating. They also propose qSOFA to achieve a rapid classification of patients without the need to expect laboratory results. Finally, they define septic shock as a vasopressor requirement to maintain 65 mmHg PAM and serum lactate > 2 mmol/L despite adequate fluid reassignment, thus uniting the proposed consensus idea published in 20145 where the use of lactate as a shock marker is proposed. Commentators' conclusions are an interesting difference between sepsis and septic shock, since there is a significant change in mortality among these groups, with a 30% increase in mortality in the event of shock. In addition, the task force unites definitions that will apply to research protocols, an event that is difficult to achieve to date, which prevents us from knowing the actual incidents of this entity. Jesica Asparch [Intensive Therapy for Adults. Italian hospital in Buenos Aires. jesica.asparch@hospitalitaliano.org.ar] Asparch J. New definitions for sepsis and septic shock: third international consensus. Evid Act Pract Ambul. 2017;20(3):July 77. Commented: Singer M, and cabbage. Third international consensual definition for sepsis and septic shock (sepsis-3). JAMA.2016;315(8):801-810. PMID: 26903338. Reference1. Bone RC et al.accp/sccm consensus conference for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. Crit Care Med. 2. Levy MM et al. 2001 SCCM/ESICM/ACCP/ATS/SIS International Sepsis Definitions Conference. Intensive care Med. 2003;29:530–8. 3. Vincent JL and cabbage. Definitions of sepsis: it's time for change. 2015;381(9868):774–5. 4. Dellinger RP and Col. Surviving Sepsis Campaign. Crit Care Med [Internet]. 2013;41:580–637. Available from: papers2://publication/doi/10.1097/CCM.0b013e31827e83af 5. Cecconi M and cabbage. Consensus on circulatory shock and haemodynamic monitoring. European Society of Intensive Care Working Group. Intensive care Med [Internet]. 2014;40:1795–815. Available from: LinkedIn uses cookies to improve the functionality and performance of our website, as well as to provide relevant advertising. By continuing to browse this website, you agree to the use of cookies. For more information, please refer to our Terms of Use and Privacy Policy. LinkedIn uses cookies to improve the functionality and performance of our website, as well as to provide relevant advertising. By continuing to browse this website, you agree to the use of cookies. For more information, please refer to our Terms of Privacy and Terms of Use. The third definition of international consensus 15 MAR 16The aim of this paper is to assess and update the definitions of sepsis and septic shock, which were last revised in 2001.Summary Working Group of Sepsis Specialists convened the Society for Critical Care Medicine and the European Society for Intensive Medicine, in order to assess and update definitions of sepsis and septic shock. The group recommended that sepsis be defined as life-threatening organic dysfunction caused by the host's deregulated response to infection. Organic dysfunction can be represented by an increase of two points or more in the score (SOFA), which is associated with intrahospital mortality greater than 10%. Septic shock should be defined as a subset of sepsis in which deep circulatory, cellular and metabolic changes are associated with a higher risk of mortality from sepsis itself. Patients with septic shock need vasopressors to maintain an average blood pressure of 65 mm Hg or more and lactate figures greater than 2 mmol/l (>18mg/dl) in the absence of hypovolaemia. Sepsis is an infection-induced syndrome of physiological, pathological and biochemical changes, the frequency of which is increasing. It is also one of the leading causes of serious disease and mortality worldwide. Patients who survive sepsis often suffer from long-term physical, psychological and cognitive problems. The consensus conference, created in 1991, is a consensus conference for the european 1 . SRIS (Systemic inflammatory response syndrome) Two or more of the following: Temperature <36°C frecuencia= cardíaca=>>38oC or 90/min Respiratory frequency >20/min or PaCO2 <32mm hg= (4.3=kpa)= cifras= de= leucocytes=>12000/mm3 <4000 m3= o=>or 10% of the cell in de Bone et al falling. Sepsis complicated by organic dysfunction was severe sepsis, which could progress to septic shock, defined as hypotension caused by sepsis that persists despite proper fluid resuscitation. The 2001 Working Group Meeting, recognizing the limitations of these definitions, expanded the list of diagnostic criteria. Definitions of sepsis, septic shock and organic dysfunction have not changed for more than two decades. The process of creating new definitions, the European Society for Intensive Care Medicine and the Society for Critical Care Medicine convened a working group of 19 specialists in pathobiology, clinical studies and epidemiology of sepsis. Definitions and clinical criteria were generated between January 2014 and March 2015. The consensus process was based on the current knowledge of changes in organic function, morphology, cell biology, biochemism, immunology and circulation (collectively called pathobiology). Updated definitions and criteria to be tested in the clinic (content validity) have been agreed. Subsequently, the concordance between the possible clinical criteria (structural validity) and the ability of the criteria to predict typical sepsis results, such as the need to enter the intensive care unit (intensive care) or death (pronotic validity) was subsequently tested. These scans were carried out in several databases that also studied the absence of elements of different results of organic dysfunction and the question of the possibility of generalization (ecological validity). A systematic review of medical literature on the subject was also carried out. Once drawn up, the recommendations of the working group, together with the evidence supporting them, were sent to large international companies and other relevant institutions for external review by experts and approved by experts. Topics studied by the Task Force task force tried to differentiate sepsis from infection without complications and update definitions of sepsis and septic shock according to new findings of pathobiology. The group recognized that sepsis is so far a syndrome without a standard diagnostic test with a validized criterion. It also identified an important need for characteristics that could be identified and measured in each patient and tried to provide these criteria to ensure uniformity. In addition, these criteria should be available</4000> </32mm> </36°C>doctors in wards outside hospitals, ambulances and hospital wards can better identify patients with suspected infection. Early diagnosis is especially important because the rapid treatment of septic patients can improve outcomes. Identified challenges and possibilities Assessment of definitions when there is no reference diagnostic test Sepsis is not a specific disease, but a syndrome that covers pathology that is still uncertain. Until now it can be identified by a constellation of signs and symptoms in a patient with suspected infection. Due to the absence of a reference diagnostic test, the working group sought clear clinical definitions and criteria that were useful and valid. A better knowledge of the pathophysiology of sepsis sepsis is the host's multiple response to infected agents that can be significantly expanded by endogenous factors. The original conceptualization of sepsis as an infection with at least 2 of the 4 SRIS criteria focused solely on excessive inflammation. However, sepsis is now recognized as implying early pro activation and anti-inflammatory responses, along with major modifications in immune pathways, such as cardiovascular, neurone, neurovegetative, hormonal, bioenergy, metabolic and coagulation. The broader perspective also highlights the significant biological and clinical heterogeneity of patients, where age, disease and equisive injuries (including surgery), drugs and the source of infection increase complexity. With greater validation, multi-stage molecular signatures could improve the characterization of population-specific subgroups. These signatures can also help to differentiate sepsis from non-infectious aggressions, such as trauma or pancreatitis, in which endogenous factors can trigger a similar biological and clinical response to the host. Variable definitions Best knowledge of underlying pathophysiology was accompanied by the recognition that many terms (e.g. sepsis, severe sepsis) are used interchangeably, while others are redundant (sepsis syndrome) or too rigorous (e.g. sepsis). Sepsis Working Party considered that the current use of 2 or more SRIS criteria for sepsis identification was inaccessible as they did not necessarily indicate a deregulated, life-threatening response. These criteria are present in many hospitalized patients, including those who never suffer from infection or poor evolution (low discriminatory validity). In addition, 1 in 8 patients admitted to intensive care in Australia and New Zealand with recent infection and organic insuffification did not have the minimum 2 SRIS criteria required to define sepsis convergent validity), and yet suffered an extended course with significant morbidity. Discriminatory validity and convergent validity are two areas of construct validity; SRIS criteria are not useful for either. Organic dysfunction or insufficiency The most commonly used result for measuring the severity of organic dysfunction is sequential assessment of organ failure (SOFA). The higher the sofa score, the higher the likelihood of mortality. An amendment to each system organ is evaluated, but additional test variables such as PaO2, platelet count, fezine and septic shock bilirubin Multiple septic shock definitions are also required. The systematic review highlights the significant heterogeneity in mortality reports, caused by differences in selected clinical variables (different points of decrease in blood pressure ± at different levels of hyperlactatemia ± the use of vasopressors ± new organic dysfunction ± volume definitions and targets of ongoing reanimation), data source and coding methods. The need for definitions of sepsis

for the public and for the health system Despite its importance around the world, the general population's knowledge of sepsis is scarce. In addition, different manifestations of sepsis make it difficult to diagnose. Therefore, the population needs an understandable definition of sepsis, while doctors need better diagnostic approaches to facilitate earlier identification of sepsis. Results and recommendations Definition of sepsis sepsis is life-threatening organic dysfunction caused by the host's deregulated response to infection. This new definition emphasizes the primacy of the host's non-homeostatic response to infection, a possible lethality that significantly exceeds that of common infections and the need for early diagnosis. Non-specific SRIS criteria such as fever or neutrophilia will continue to contribute to the overall diagnosis of infection. These data complement the characteristics of specific infections (e.g. rash, pulmonary consolidation, disturias, peritonitis) indicating possible anatomical origin and infection of microganism. However, SRIS can simply reflect the appropriate response of the guest, which is often customizable. Sepsis involves organic dysfunction, indicating a more complex pathobiology than infection with an accompanying inflammatory response. According to this terminology, the term severe sepsis is redundant. Clinical criteria for the identification of patients with sepsis, the Working Party has recognised that no current clinical measurement reflects the concept of deregulated host response, but many data from physical examination and common analyses indicate inflammation or Organic. Therefore, he assessed which medical criteria best identify the infected patients most likely to develop sepsis. This goal was achieved by researching large groups of hospitalized patients with suspected infection to assess whether there was an agreement between the results of inflammation (SRIS) or organic dysfunction (e.g. Electronic medical records of 1.3 million people were studied at 12 hospitals in Pennsylvania in the United States. Of these, 148,907 patients were suspected of infection, who were the ones who received the crops and who received antibiotics. Two parameters were used to assess predictive validity – intrahosital mortality and mortality, internships in intensive care for 3 days or more or both. For infected patients inside and outside intensive care, the prognostic validity was determined by two measurements for each criterion: the area under the diagnostic efficacy curve (AUROC) and the change in parameters comparing patients with a score of 2 points or more or less than 2 points in different scoring systems. These criteria were also analysed in other datasets of more than 700,000 patients outside of intensive care, with out-of-hospital and intrahospital infection. In Pennsylvania patients with suspected infection, discrimination for intrahospital mortality with SOFA and organ dysfunction was higher than that of SRIS. Similar was the pronotic validity of the change in the sofa score of 2 or more. For patients outside of intensive care and with suspected infection, discrimination in intrahospital mortality with SOFA or a change in couch scores was similar to that at SRIS. Because SOFA is better known and simpler than the organ dysfunction logistics system, the task force recommends using a change in the initial SOFA score of 2 points or more to represent organic dysfunction. It is assumed that the initial assessment of sofa is zero, unless it is known that the patient suffers from organic dysfunction (acute or chronic) prior to the onset of infection. Patients rated 2 or higher on SOFA had a mortality risk of approximately 10% in the general hospital population with suspected infection. Depending on the initial level of risk for each patient, a sofa score of 2 or more identified an increase of 2 to 25 times the risk of death compared to patients with a SOFA score of less than 2. Sofa result should not be used as a therapeutic tool, but as a means of clinical character of the septic patient. Several new biomarkers can identify renal and hepatic dysfunction or coagulopathy before the elements used in sofa, but still need further validation. Pesquisa de patients with probable sepsis The clinical model developed with multifactorial logistical regression found that 2 out of 3 clinical variables – a Glasgow coma scale of 13 or less, systolic pressure of 100 mm Hg or less, and a respiratory frequency of 22/min or more – had a pronotical validity similar to that of the entire SOFA results outside intensive care. For patients in intensive care with suspected infection, sofa score was worth agnostic higher than the results of this model, probably reflecting the modification effects of interventions (vasopressors, sedatives, assisted breathing). Adding lactate measurements did not significantly improve prognosticity, but it may help identify patients at medium risk. This new determination, called qSOFA, provides simple metrics for identifying adult patients with suspected infection who are likely to experience poor development (Table 2). Because the prognosticity has not changed, the taskforce highlighted the altered mental state, as it represents any result on the Glasgow Com scale of less than 15 and reduces the measurement burden. Table 2. QSOFA criteria Respiratory rate ≥22/min Damage to mental state of syphilial pressure ≤ 100 mm Hg Although qSOFA is less solid than SOFA scores 2 or higher in intensive care, does not require laboratory tests and can be quickly evaluated. The task force proposes using the qSOFA criteria to motivate doctors to further investigate organic dysfunction, initiate or increase treatment, and consider referral to intensive or increasing frequency of controls. The group believes that positive qSOFA criteria should also force patients without a diagnosis of infection to think about a possible infection. The definition of septic shock Septic shock is defined as a subcategory of sepsis in which circulation and cellular changes of metabolism are deep enough to significantly increase mortality. The task force unanimously agreed that the concept of septic shock should reflect a more serious disease that is much more likely to die than just sepsis. Clinical criteria for the detection of septic shock First a systematic review was carried out which assessed how to make the current definitions operational. This supported delphi's process for determining the updated definition and clinical criteria for septic shock. The Delphi process evaluated agreements in descriptions of different terms to include them in new clinical criteria. Most (n x 14/17; 82.4%) The members of the working group agreed that hypotension average blood pressure is less than 65 mm Hg, according to the pragmatic decision that this is the most common pressure in the database of patients with sepsis. Highest (11/17, 64.7%) group agreed that the increase in the concentration of reflects cell dysfunction in sepsis, while it recognizes that multiple factors contribute, such as insufficient oxygen to tissues, altered aerobic breathing, acceleration of aerobic glycosysis and decreased liver purification. Lactate increase, however, is a reasonable indicator of the severity of the disease and its increase is the prognosis of higher mortality. They were identified by consensual Delphi processes, three variables (hypotension, increased lactic acid and the ongoing need for vasopressor treatment) for research in cohort studies, examining different combinations and different lactate thresholds. The first database consulted was the International Multiple International Campaign Records for Sepsis Survivors, with 28,150 infected patients with at least 2 SRIS criteria and at least one organic dysfunction criterion. 18840 patients with vasopressor treatment, hypotension (average <65 mm= hg,= o= aumento= del= ácido= láctico= (=>blood pressure 2 mmol/ [18 mg/dl]) was identified after fluid resuscitation. Patients with liquid-resistant hypotension who needed vasopressors and increased lactic acid were the reference group for comparing differences between risk-adjusted (OR) groups for mortality. Intrahospital mortality adjusted for risk was significantly higher (P < 0.001=en= relación= con= e= group= referenceia)= en= los= pacientes= con= hypotensión= resistente= a= los= lía=en= los= los= <a hr=<=1====y =1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=1=12.42.8%=1=1=1=1=1=1=1=1=1=1=1=111/10 10pm. 2 mmol/l [18 mg/dl] or >4 mmol/l [36 mg/dL], lactic acid alone (25.7% and 29.9% mortality for lactate >2 mmol/l [18 mg/d] and >4 mmol/l [36 mg/dL], respectively, resistant hypotension requiring vasopressors but lactate of 2 mmol/l (18mg/dl) or less (30.1%). With the same 3 variables and a similar classification, unjudged mortality of infected patients in 2 large unrelated electronic databases (University of Pittsburgh Medical Center [12 hospitals; 2010.-2012.; n. 5984] and Kaiser Permanente Northern California [20 hospitals; 2009.-2013.; n. 54135]) showed repeatable results. The association between hypotension, vasopressor and lactate use >2 mmol/l (18 mg/dl) identified patients with a mortality rate of 54% at the University of Pittsburgh Medical Center (n. 315) and 35% at Kaiser Permanente Northern California (n. 8051). These mortality rates were higher than mortality rates of 25.2% (n x 147) and 18.8% (n x 3094) in patients with one hypotension, 17.9% (n x 1978) and 6.8% (n x 30209) in lactic acid patients >2 mmol/l (18 mg/dL) and 20% (n x 5984) and 8% (n x 54135) in sepsis patients at the University of Pittsburgh Medical Center and Kaiser </65>Northern California, that is. The group recognized that lactic acid cannot be measured in all hospitals, but nevertheless the clinical criteria for septic shock were created by hypotension and increased lactic acid, as the association both includes cell dysfunction and cardiovascular commitment and is associated with significantly higher risk-adjusted mortality. Recommendations for the WHO's International Classification of Diseases (CIE) and for definitions for public table 3 and 3. Terminology and coding in the International Classification of Diseases *This comment also applies to the sepsis column Due to the importance of the correct application of diagnostic codes, Table 3 describes in detail how the new clinical criteria for sepsis and septic shock relate to the codes CIE-9-CM and CIE-10. The task force also approved the recently published definition of Lego that sepsis is a life-threatening disease that occurs when the body's response to an infection injures its own tissues. To convey the importance of sepsis to the general population, the group stresses that sepsis can cause death, especially if it is not recognized early and is not treated quickly. Despite medical advances, sepsis remains the leading cause of death from infection. It is recommended to expand education campaigns to better report this deadly disorder. Controversy and limitations Defining sepsis and septic shock entails inherent challenges. Sepsis is a broad term that refers to a process over which knowledge is still incomplete. There are not yet simple criteria that are not ambiguous, whether clinical or biological, imaging studies or tests that recognizably identify a septic patient. The group recognised the inability to reach full consensus on all points. The new definition of sepsis reflects an updated vision of pathobiology, especially on what distinguishes sepsis from infection without complications. The group also offers clinical criteria that are easy to measure and cover the essence of sepsis, but can still be explained and objectively recorded. Initial, retrospective, analysis showed that qSOFA could be a useful tool, especially for doctors working outside intensive care (and possibly outside the hospital, since qSOFA relies only on physical examination data), to quickly identify infected patients with poor likelihood of development. The Working Party recommends future validation in multiple healthcare services to confirm their robustness and ability to be included in future definition repetitions. This simple result can be particularly important in resources to poor places that do not have laboratory or literature on the epidemiology of sepsis. Neither qSOFA nor sofa alone are the definition of sepsis. However, it is essential that failure to meet 2 or more qSOFA or SOFA criteria does not delay the investigation or treatment of the infection. qSOFA can be performed quickly by the patient's bedside without the need for blood tests and is expected to facilitate the rapid identification of life-threatening infections. If no tests have yet been carried out, this result may trigger its realization in order to identify organic dysfunction. The Working Party notes that SRIS criteria can still be useful in identifying infection. There are controversies over the use of lactate numbers to identify sepsis in an infected patient. Lactate figures are sensitive, if not specific, an indicator of cellular or metabolic stress, not shock. However, the association of hyperlactatemia with fluid-resistant hypotension is characteristic of a particularly high mortality group, thus offering a stronger identifier of the physiological and epidemiological concept of septic shock than any of the two separate criteria. Recognizing septic shock as another entity is more epidemiological than clinical. When lactate measurement is not available, hypotension and other criteria compatible with tissue hypoperfusion may be necessary for the diagnosis of septic shock (e.g. hair filling delay). The task force focused on adult patients, but recognizes the need to create similar updated definitions for the paediatric population and apply clinical criteria that take into account age-dependent variations in pathological responses. The results of the Task Force generated new definitions that include up-to-date knowledge of the biology of sepsis, including organic dysfunction. However, the lack of standardisation of criteria, similar to their absence in many other syndromes, prevents clear and defined validation and instead requires rough assessments. In order to help and possibly motivate enhanced treatment, simple clinical criteria (qSOFA) have been created and validated to identify patients with suspected infection who are likely to develop poorly (prolonged intensive care and death course). Such an approach has important epidemiological and investigative consequences. The proposed criteria should assist the diagnostic classification after the completion of the initial evaluation and immediate treatment. There is a possibility of conflict with organic dysfunctional scoring systems and ongoing research. Many of these results were created by consensus, while an important aspect of this work is data questioning, albeit retrospectively, patient population. The Working Party argues that standardisation of definitions and clinical criteria is essential to ensure clear communication and the most accurate assessment of the magnitude of sepsis problems. Another difficulty is that the infection is rarely microbiologically confirmed when starting treatment; Even when microbiological tests were completed, sepsis with a positive culture was observed in only 30% - 40% of cases. Future epidemiological studies should consider reporting the proportion of sepsis with positive crops. Changes in IDS coding can take several years, so the recommendations in Table 2 show how to implement new definitions with the current IDS system in the meantime. The debate and debate that this work will inevitably generate are welcome. Aspects of the new definitions depend on the opinion of experts; increased knowledge of sepsis biology, new diagnostic approaches and increased data collection will encourage its further re-evaluation and review. Conclusions This updated clinical definition and criteria should facilitate earlier diagnosis and more timely treatment of patients with sepsis. However, this process is still in development. The Working Party recommends that the new definition be defined as Sepsis-3, and those from 1991. Or.