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The European guideline on management of major bleeding and coagulopathy following trauma: fourth edition

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Abstract

Background: Severe trauma continues to represent a global public health issue and mortality and morbidity in trauma patients remains substantial. A number of initiatives have aimed to provide guidance on the management of trauma patients. This document focuses on the management of major bleeding and coagulopathy following trauma and encourages adaptation of the guiding principles to each local situation and implementation within each institution.

Methods: The pan-European, multidisciplinary Task Force for Advanced Bleeding Care in Trauma was founded in 2004 and included representatives of six relevant European professional societies. The group used a structured, evidence-based consensus approach to address scientific queries that served as the basis for each recommendation and supporting rationale. Expert opinion and current clinical practice were also considered, particularly in areas in which randomised clinical trials have not or cannot be performed. Existing recommendations were reconsidered and revised based on new scientific evidence and observed shifts in clinical practice; new recommendations were formulated to reflect current clinical concerns and areas in which new research data have been generated. This guideline represents the fourth edition of a document first published in 2007 and updated in 2010 and 2013.

Results: The guideline now recommends that patients be transferred directly to an appropriate trauma treatment centre and encourages use of a restricted volume replacement strategy during initial resuscitation. Best-practice use of blood products during further resuscitation continues to evolve and should be guided by a goal-directed strategy. The identification and management of patients pre-treated with anticoagulant agents continues to pose a real challenge, despite accumulating experience and awareness. The present guideline should be viewed as an educational aid to improve and standardise the care of the bleeding trauma patients across Europe and beyond. This document may also serve as a basis for local implementation. Furthermore, local quality and safety management systems need to be established to specifically assess key measures of bleeding control and outcome.

Conclusions: A multidisciplinary approach and adherence to evidence-based guidance are key to improving patient outcomes. The implementation of locally adapted treatment algorithms should strive to achieve measureable improvements in patient outcome.

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