20 years TraumaRegister DGU(R): Development, aims and structure

TraumaRegister DGU(R)1, *

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ABSTRACT

The TraumaRegister DGU(R) organisational and technical development has undergone an evolution process, which started 20 years ago. Currently, the management of the registry is under the management of the “AUC – Academy for Trauma Surgery” (infrastructure) and the “Sektion NIS” (scientific responsibility). The aim of the registry was to establish an inter-hospital quality assessment tool with the option to use the increasing database for scientific evaluations of acute care. Year by year and most recently with the obligation to participate of certified hospitals the number of participating hospitals has grown as well as the registered cases per annum. Recently, even hospitals from other countries joined the registry too. Starting with six German hospitals and 260 cases in 1993, 20 years later more than 600 hospitals from eleven countries deliver over 30,000 trauma cases per year resulting in over 150,000 reported cases until 2013. In this article a historical perspective is presented of the evolution and current status of the TraumaRegister DGU(R).

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Introduction

The idea of developing a trauma registry to compare patient’s outcome despite very different injury pattern was created by a small group of enthusiastic trauma surgeons. They were inspired by the increasing discussion about scoring systems in trauma in the eighties and the results of the Major Trauma Outcome Study published a few years before [1]. They founded a working group of the German Trauma Society in 1992 originally called “AG Scoring”. After a few consensus meetings they came to terms with a documentation sheet and started to document the first patients in the following year. The aim of this group was to establish an inter-hospital quality assessment tool with the option to use the increasing database for scientific evaluations of acute care. Just six German hospitals took part in this group in the beginning.

Since the topic of the working group was not only scoring but also evaluating acute care of severely injured patients the working group was renamed to “AG Polytrauma”, the German term for severely injured patients. In 2007, the working group merged with the working group on “Emergency medicine” to form the “Committee on Emergency Medicine, Intensive Care and Trauma Management” of the German Trauma Society (“Sektion NIS”). This committee took the scientific responsibility for the further development of the TraumaRegister DGU(R) (TR-DGU) coordinated by a “TraumaRegister Steering Group” within this Committee. Today the TraumaRegister DGU(R) covers about 90% of all severely injured patients in Germany, at eye level with a handful of other national trauma registries in the world.

Development of the dataset

The treatment of severely injured patients can be divided into four consecutive time phases: the time from accident until admission to hospital (pre-hospital phase), the time from admission to the emergency room until admission to ICU or ward, including initial operations (ER/OP phase), the time while on ICU, and finally the time until discharge from acute care hospital. For all four phases parameters are needed, which illustrate the condition of the patient in this phase and describe their treatment. Finally, the outcome has to be documented, and this is more than just survival.

Other parameter should also cover topics like epidemiology (e.g. type of accident), injury severity and pattern, process of care data (e.g. time until certain diagnostics are performed), and finally some characteristics of the treating hospital. In order to guarantee completeness of data it is an advantage if these variables are documented routinely. However, the decision to include a variable in the registry should not exclusively depend on its routine availability. For an overview of the currently used variables see Table 1. The documentation form itself is available in German and English at www.traumaregister.de.