



Standard Guide for Characteristics for Cervical Spine Immobilization Collar(s) (CSIC)¹

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INTRODUCTION

The objective of this guide is to begin to address the recognized need to support and immobilize the components of the spine or spinal cord. Although this guide does not quantitatively address performance standards for this device, it does address the characteristics of the device(s) used to provide support and immobilization of the components of the central nervous system for the patient suspected of receiving trauma to that body system.

1. Scope

1.1 This guide establishes minimum standards for devices, designated here as cervical spine immobilization collar(s) (CSIC), commonly referred to as cervical collars. The CSIC is used as the initial device for immobilization of the cervical spine, of a patient by emergency medical service personnel.

1.2 This guide does not identify specific degrees of limitation of motion achieved by placement of a CSIC on a patient. Definitive requirements for immobilization of the spine, and, in particular, the degree of limitation associated with the use of a CSIC, has not been established in the medical literature.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

F 1177 Terminology Relating to Emergency Medical Services²

2.2 Centers for Disease Control Standard:

Guidelines for Prevention of Transmission of HIV and HBV to Healthcare and Public Safety Workers³

2.3 OSHA Standard:

29 CFR 1910.1030 Occupational Exposure to Bloodborne Pathogens; Final Rule⁴

3. Terminology

3.1 Definitions:

3.1.1 *retention system*—a retention system is an adjunct to or an integral part of the primary platform that allows the patient to be securely attached to that platform used in whatever configuration and size necessary to accomplish the goal, while still allowing reasonable and necessary access to the patient.

3.1.2 *spinal immobilization*—spinal immobilization shall refer to immobilization of the spine and its contiguous structures, the pelvis, and skull.

3.1.3 *spine*—the spine shall include the cervical, thoracic, lumbar, and sacral vertebrae.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *cervical spine immobilization collar*—a device that can be applied and secured to a patient to support and immobilize the cervical spine during immobilization and transportation.

3.2.2 *directions of movement*—directions include flexion, extension, rotation, distraction, lateral motion, and axial compression motion.

3.2.3 *immobilization*—limitation of motion.

3.3 For definitions of other terms used in this guide, refer to Terminology F 1177.

4. Significance and Use

4.1 The intent of this guide is to identify characteristics that a CSIC shall possess.

4.2 It is not expected that the CSIC will be used alone to provide the entire scope of required immobilization. Clinical situations may require differing combinations of devices for adequate total spinal immobilization. A CSIC may be one of the devices.

4.3 Various configurations or sizes, or both, may be required to accommodate variation amongst individuals.

¹ This guide is under the jurisdiction of ASTM Committee F-30 on Emergency Medical Services and is the direct responsibility of Subcommittee F30.01 on EMS Equipment.

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² *Annual Book of ASTM Standards*, Vol 13.01.

³ Available from Center for Disease Control, Atlanta, GA 30333.

⁴ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.