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<b>Date:</b>	June 11, 2014
<b>Title:</b>	<b>POSITION STATEMENT on use of handheld portable dental x-ray equipment</b>

<b>Summary:</b>	<p>The position statement focuses on justification in the medical field, in particular on the use of handheld portable dental x-ray equipment. It supplements another HERCA position paper, providing a general overview of the use of all hand-held portable X-ray equipment.</p> <p><u>Key Messages :</u></p> <ul style="list-style-type: none"><li>• HERCA finds that the use of handheld portable X-ray devices should be discouraged except in special circumstances.</li><li>• As a general rule, these devices should only be used in scenarios where an intraoral radiograph is deemed necessary for a patient and the use of a fixed or semi-mobile x-ray unit is impractical, e.g.:<ul style="list-style-type: none"><li>– nursing homes, residential care facilities or homes for persons with disabilities;</li><li>– forensic odontology,</li><li>– military operations abroad without dental facilities.</li></ul></li></ul>
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*Approved on the occasion of the 13<sup>th</sup> HERCA Board meeting,  
Vilnius, Lithuania, 12 June 2014*

## **POSITION STATEMENT**

### **on use of handheld portable dental x-ray equipment**

Recently, an increase in the marketing and use of handheld portable X-ray devices for intraoral radiography has been observed in Europe. These battery-powered X-ray devices are designed to be held by the operator during exposure, resulting in doses to the operator potentially higher than those associated with the use of conventional dental X-ray systems mounted on a wall or a stand. Doses to members of the public must be considered. Patient exposure may be also of concern, and image quality could be compromised mostly because of the necessity for longer exposure times due to lower tube current, difficulties in using rectangular collimation with beam aiming devices, high weight and use in uncontrolled environments.

HERCA finds that use of handheld portable X-ray devices should be discouraged except in special circumstances. As a general rule, these devices should only be used in scenarios where an intraoral radiograph is deemed necessary for a patient and the use of a fixed or semi-mobile x-ray unit is impractical, e.g. nursing homes, residential care facilities or homes for persons with disabilities; forensic odontology, military operations abroad without dental facilities.

European radiation protection legislation requires any new type or class of practice involving ionizing radiation to be justified before being adopted. The general justification of the use of handheld portable x-ray devices as a type of practice will depend on the approach of each Member State. Whether or not the use is considered justified at a general level, guidance will be needed to clarify the special circumstances, such as those identified above, where the use is justified for the exposure of the individual, on a case-by-case basis, in accordance with the flexibility offered by the European BSS, article 55, 2c.

For each case where a handheld portable X-ray device is used, it shall meet all the requirements of the European Medical Devices Directive and IEC-CENELEC norms as well as being properly CE marked. The published European Guidelines on radiation protection in dental radiology (RP 136) and the Criteria for Acceptability of Medical Radiological Equipment used in Diagnostic Radiology, Nuclear Medicine and Radiotherapy (RP 162) should be followed as appropriate when using a handheld portable X-ray device, just as with fixed units. Comprehensive documentation and traceability is required whenever a handheld portable X-ray device is used inside or outside designated facilities, allowing for controlled and justified use of handheld equipment and discouraging potential misuse.

The position statement of the European Academy of Dental and Maxillofacial Radiology (EADMFR) on justification and good practice in using handheld portable dental x-ray [ref] equipment provides more detailed guidelines on the use of these devices.

