



***International Society for Medical
Shockwave Treatment***

**ISMST Newsletter 2019
Shockwave Research and Ethics**

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Besides scientific standards, ethical publication would probably be a political matter to be handled by scientific societies to collaborate in promoting research integrity. As a scientific society pursuing excellence, the International Society for Medical Shockwave Treatment (ISMST) is committed to preventing, detecting and reporting any dishonesty, fraud or corruption. According to its Constitution, the purpose of the ISMST is to support the development and research of extracorporeal shockwave treatment (ESWT) and to improve the education of shockwave therapy users. Thereby, the Society is a communication platform for all matters concerning shockwave therapy in medicine. Likewise, ethical principles of the ISMST are summarized in the Guideline of Compliance and Code of Conduct (GCCC), under the supervision of the Compliance Committee. Disclosure and compliance policies for Board and members of the scientific society is essential.

Safeguards must be established to ensure academic and ethical publishing, and to maintain public trust in the integrity of medical research in general, and in the fascinating shockwave literature as well.

In preparing an article, vigorous rules for scientific writing have to be followed. Scientific writing requires an effective, disciplined and responsible dissemination of clinical research to create knowledge and persuade the reader.

Unfortunately, new cases of scientific misconduct, errors and/or fake news arise continuously and could affect the interpretation of data, whatever the cause of the error. Although such errors may not be easy to identify, caution should be taken when reading articles to detect those misconducts.

As such, we encourage our members to perform a scientific and ethical writing and the correction of errors in the medical literature.

Not all shockwaves are the same, neither do they provide the same efficacy or evidence. Typical conceptual errors are mixing shockwave terms, such as focused shockwaves and radial pressure waves. Another controversy is to extrapolate the evidence of one technology (e.g. electrohydraulic) to another one (e.g. piezoelectric). It is not surprising to find heterogeneous shockwaves parameters in the literature, reducing chances of strong evidence publications when performing systematic reviews or meta-analysis. Absence of evidence of one technology does not necessarily means absence of evidence of another technology. To sum up, it is mandatory to establish a specific diagnosis before considering the application of shockwaves, to indicate the best shockwave's term and treatment protocol for each technology.

In order to provide reliable shockwave information, we strengthen the scientific community to disclose errors regarding shockwave publications by writing Letters to the Editors.

To clarify confusing shockwave publications, we have written so far four "Letters to the Editors":

1. A systematic review on low back pain: ultrasound and shockwaves (Seco et al. 2014)
2. A randomized clinical trial (RCT) of ultrasound-guided needling and shockwaves in calcific tendinitis of the shoulder (Kim et al. 2014).
3. A RCT in painful achilles tendinopathy: peritendinous hyaluronan injection vs. shockwaves (Kim et al., 2017).
4. Shockwaves vs. Hyaluronic acid injection of non-calcific rotator cuff tendinopathies (Frizziero et al. 2017).

As J. Egan reported: "we need to write now, write well, tell the truth in all its messy complexity".

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