EDSPPP 2022 Conference Abstract Submission Form

Submission deadline is March 15th 2022, 23:59 CET.

Abstracts should be in English, with a maximum of 1800 characters (including spaces). Please use single spacing and Times New Roman, 12-point font.
Abstracts should provide a brief description of research objectives, methodology, results, and conclusions.
Please do not include any figures or references.
Tables will not be formatted (so it is probably best not to submit tables).
We apologise but it is not possible to preview the abstract before it is submitted.
Abstracts will be reviewed anonymously.

**What is known about the pharmacology of intramuscular therapeutics in Duchenne Muscular Dystrophy? A Systematic Review.**

**E. Roberts, J. Gan, D. Hawcutt, S. Spinty**

**Background:**

In 2018 the Centers for Disease Control published updated Standards of Care for DMD – newly included was the recommendation for all patients with DMD who received steroids to receive prescriptions for intramuscular (IM) hydrocortisone for emergency administration at home.

**Objectives:**

The aim of this systematic review was to assess the current understanding of the pharmacodynamics and kinetics of intramuscular therapies in patients affected by DMD.

**Methods:**

A systematic review was conducted according to Cochrane methodology. Medline, EMBASE and PubMed databases were searched. Two independent reviewers reviewed the abstract of each identified paper. Where there was any discrepancy in the decision to include or exclude a paper, a third reviewer arbitrated.

**Results:**

The search returned a total of 98 papers. 96 papers were excluded: 61 described animal or in-vitro studies, whilst the remaining studies did not study an intramuscular pharmacological intervention or were review articles.

Of the two included articles, one compared the immunogenicity of intramuscular and subcutaneous administration of influenza vaccination, and the other studied ten patients with DMD who were injected with two different doses of plasmidic DNA. Neither study reported on the pharmacodynamics or kinetics of the interventions.

**Conclusions:**

There is very limited evidence into the pharmaco-kinetics and -dynamics of IM therapies for children affected by muscular dystrophy. Given the recognised changes in the muscle structure and function, studies to explore if this causes clinically significant changes in boys with DMD are required