Information for parents
Bone and joint infections in children and adolescents - a research project

Original title: Oral antibiotika til børn og unge med led- og knogleinfektioner. Et nationalt, randomiseret, kontrolleret forsøg.

Summary:
• Children and young people with bone and joint infections are treated with intravenous antibiotics for about 3-5 days followed by oral antibiotics for 1-4 weeks.
• We want to investigate whether oral antibiotics from day one is as effective as the current treatment. If this is confirmed, children with bone and joint infections can be treated at home and avoid unnecessary needlesticks.

Dear parents

We hereby ask if you would allow your child to participate in a research project on the treatment of children and adolescents with bone or joint infections. Before you decide, please read this information carefully and we will then talk to you about the project. Participation is voluntary, and you can withdraw your consent at any time and without explanation. We expect 200 children and young people from all over Denmark to participate in the project.

Purpose:
We want to investigate whether oral antibiotics (tablets or oral solutions) from day one (new treatment) are as effective as the current treatment, where antibiotics are given intravenously for the first days followed by oral treatment.

Background:
Today, we treat many infections in children and adolescents with oral antibiotics. However, joint and bone infections are still treated with intravenous antibiotics for the first 3-5 days followed by oral antibiotics for 1-4 weeks. The duration of intravenous antibiotic has been greatly reduced in recent years and some studies have shown that oral antibiotics throughout the full treatment period may be sufficient. However, so far, no studies have compared the two treatments.

Project plan:
Your child will randomly be selected to receive one of two treatments:
1. **New treatment:** Oral antibiotics from day one. The first dose is taken at the hospital, but then the treatment can take place either at home or in hospital depending on your child’s condition.
2. **Current treatment:** Intravenous antibiotics from day one until there is improvement in the condition (typically 3-5 days). Then switch to oral antibiotics. The intravenous treatment will be performed in the hospital.

All children and adolescents will be followed closely by doctors and nurses for the effect of treatment (development in pain, redness, swelling, temperature). During treatment at home, all families will be
contacted by telephone twice a week by a project nurse as an additional follow-up. In addition, the Children and Adolescents Department can be contacted 24 hours a day throughout the treatment period. The effect of the treatment will be assessed with blood tests, among other things. The total duration of treatment follows common guidelines in both groups (usually 2-4 weeks) depending on the condition of the child.

There will be a follow-up appointment after 6 and 12 months, during which time your child will be examined by a doctor, and an X-ray may be taken.

If your child does not participate in the project, he/she will receive the current treatment.

**Sampling and storage of samples:**
Children involved in the project will have blood tests taken according to the standard practice of treating bone and joint infections. When these standard blood samples are drawn, a small amount of blood will also be drawn for additional analyses. If other samples are taken due to standard practice, such as fluid from a joint, extra material will be stored if possible. In some cases, you will be asked for an additional sample, such as saliva, urine, feces or throat swab. The collected material will be stored in a research biobank until December 31st, 2029. It will be used to measure antibiotic concentrations and to investigate new methods for diagnosing infectious conditions in children and adolescents. The material will be encoded for anonymity and will not be directly traceable back to your child. After 2029, excess material will be transferred to a biobank for future research and will only be applicable after new approval from the Scientific Ethics Committee. You can always have the material from your child destroyed.

**Side effects, risks, complications and disadvantages:**
We ask you and your child to participate in this project because your child is among the children where we do not know if the best treatment is oral or intravenous antibiotics. There is a small risk that the new treatment is insufficient, which is why we will follow your child closely. If the treatment is insufficient, it will immediately be reassessed and, if necessary, changed. A small number of children are insufficiently treated with the current treatment and need a change of treatment along the way. We expect this to be the case with the new treatment as well.

Antibiotics can cause side effects such as abdominal pain, diarrhea and skin rash. We expect the side effects to be the same in the two groups. Extra blood samples will be taken at the same time as the regular blood samples, and your child will not be subjected to more needlesticks than usual. The total amount of blood taken each time will be a maximum of 1-2% of the child's blood volume and this will have no effect on the health of the child.

There may be risks to the project that we do not yet know, but we do not expect increased side effects or complications either in the short or long term.

**Managing personal data:**
The research team will obtain relevant health information in the electronic patient record relating to the disease episode, including the condition of the child, blood tests, bacterial examinations and scans. If we need more information, we will contact you after hospitalization with questions about the course of the disease. Before the analysis, the samples collected and data from medical records data will be assigned a
code so that the child's civil registration number (CPR number) does not appear directly. Data will be stored in a database created for the research project. The Danish Data Protection Act and Data Protection Regulation will be respected.

Benefits of the project
The expected benefits of the project include that most children and adolescents with bone or joint infections in the future will be able to receive oral antibiotics from day one. Hereby time at the hospital as well as insertion of intravenous catheters are reduced. This reduces insecurity in the child and increases the quality of life. There is no direct benefit for your child, but children who are randomized to the new treatment will avoid the insertion of an intravenous catheter.

Exclusion from the project
Your child can be excluded from the project if he/she appears seriously ill, if an intravenous catheter cannot be inserted, oral treatment cannot be performed, major surgery is needed, or another diagnosis is made along the way.

Financial support
The project has received funding from the Danish National Hospital's Research Foundation (DKK 3.25 million) and Copenhagen Health Science Partners (DKK 0.5 million) for salaries for researchers, analyses, statisticians and dissemination. None of the associated researchers have economic or commercial interests in the results of the study or its beneficiaries. There are no financially affiliated companies.

The project has been approved by the Scientific Ethics Committee with protocol number (j.nr. H-20009117). On the next page you will find information about your rights as a participant in a research project.

We hope that this information has helped you decide whether your child can take part in the project. You are welcome to contact us if you would like to know more about the project. It is possible to obtain information about the results when these are published on the project’s website: childathome.dk.

Sincerely,

National primary investigator: Allan Bybeck Nielsen, MD
Local primary investigator:
BørneUgeKlinikken
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Participants rights in a health science research project

Information from the Scientific Ethics Committee, translated from “Forsøgspersoners rettigheder i et sundhedsvidenskabeligt forskningsprojekt”

As a parent to a participant in a biomedical research project, please note that:

- Your child's participation in the research project is entirely voluntary and he/she may only participate after you have been informed verbally and in writing about the research project and signed the consent form.

- You may withdraw your consent verbally, in writing or by any other clear indication at any time and leave the project. Withdrawing your consent does not affect your right to current or future treatment or any other rights you or your child may have.

- You are entitled to bring a family member, friend or acquaintance to the introductory consultation.

- You are entitled to take time to think things over before you sign the consent form.

- Information about your child's health as well as other personal and confidential information about your child that comes to light in connection with the research project are covered by a duty of confidentiality.

- Storage of personal information on your child, including information contained in your child's blood samples and tissue, will be in accordance with regulations in the Danish Data Protecting Act and the Danish Health Act.

- In accordance with the Danish Act on Free Access to Public Records, you have legal right of access to experimental protocols. This means that you can both access all documents concerning your child’s participation in the study, except for the sections that contain trade secrets or confidential information about other people.

- In accordance with the Danish Act Governing the Right to Complain and to Obtain Compensation in the Danish Healthcare System, you may lodge a complaint and seek compensation. If you are injured during the trial, please contact the Patient Compensation Association; for more information visit www.patienterstatningen.dk.

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