Institutional Review Board
Informed Consent Document for Research

Principal Investigator: Donald H Arnold, MD, MPH **Revision Date:** 01.04.18
Study Title: Pragmatic RCT of high-dose oral montelukast for moderate and severe pediatric acute asthma exacerbations
Institution/Hospital: Vanderbilt University Medical Center, Vanderbilt Children's Hospital

This informed consent applies to the parent or legal guardian.

Name of participant: _____ Age: _____

The following is given to you to tell you about this research study. Please read this form with care and ask any questions you may have about this study. Your questions will be answered. Also, you will be given a copy of this consent form.

Your child does not have to be in this research study. You may choose for your child to not to be in this study and get other treatments without changing your healthcare, services or other rights. You can stop your child from being in this study at any time. If we learn something new that may affect the risks or benefits of this study, you will be told so that you can decide whether or not you still want your child to be in this study. Your child's medical record will contain a note saying you are in a research study. Anyone you authorize to receive your medical record will also get this note.

1. **What is the purpose of this study?**
   Your child is being asked to take part in this research study because she/he has asthma and is having a moderate- or severe acute asthma attack. The purpose of this study is to find out if the medicine called montelukast is helpful to make the attack better. There is scientific data that suggests that if this medicine is given by mouth at 6-times the usual dose it may make the attack better within a couple hours. We will ask your child to take the medicine at this dose and to take the usual dose once daily for 3 more days.

2. **What will happen and how long will your child be in the study?**
   We will ask you some questions about your child's past medical history, check vital signs and measure your child's height and weight. We will place a pulse oximeter probe on your child's finger. This will feel like a loose clothesline clip. We will also listen to your child's lungs.

   We will ask you child to perform 2 breathing tests before the montelukast medicine and again 2 hours after taking the medicine. The breathing tests will not cause discomfort or involve risk to your child. They will be done while your child is being treated and will not prolong your stay in the emergency department. The tests are approved by the Food and Drug Administration (**FDA**) for the evaluation of children with asthma and other breathing disorders. For the 1st test, your child will be asked to breathe through a mouthpiece for about 30 seconds and do this 3 times. For the 2nd test, your child will be asked to take the deepest breath possible and then exhale forcefully through the mouthpiece until their lungs are empty. Your child will be asked to repeat this several times. The total time will be approximately 10 minutes at each step and 40 minutes total time during your emergency department stay.

   We will also obtain gently swab your child's nose. This will be sent to a laboratory to see if viruses that sometimes cause colds are present. Your child's samples and information about her/him may be made available to others to use for research. To protect her/his privacy, we will not release their name. She/he will not receive any benefit as a result of the tests done on this sample. This test may help us learn more about the causes, risks, treatments, or how to prevent asthma and other health problems.

   The FDA has given us approval to give the montelukast at the dose (30 milligrams) your child will receive. To find out if the montelukast medicine is helpful in making asthma attacks better, we will compare montelukast to a placebo or "sugar pill." Some children in the study will get montelukast and others will get placebo. You will not know if you child received montelukast or placebo, and we will not know either. Your child will swallow the montelukast or placebo as sprinkles mixed with apple sauce, chocolate pudding or vanilla pudding. We offer these choices because some children may be allergic to or may not like one of the choices.

   We will show you how to complete a 10-item survey called the pediatric asthma caregiver diary (PACD). This measures how much asthma symptoms are a burden to your child. We will give you a stamped post-card with the survey. We will ask you to complete and mail it about 3 days after the emergency room stay. At this point you and your child are finished with this study.

3. Costs to you if your child takes part in this study:

There is no cost to you for taking part in this study. However, you are still responsible for paying for the usual care your child would normally receive for the treatment of their illness. This includes treatments and tests you would need even if you were not in this study. These costs will be billed to you and/or your insurance.

If you would like assistance, financial counseling is available through the Vanderbilt Financial Assistance Program. The study staff can help you contact this program. You have the right to contact your insurance company to discuss the costs of your child's routine care (non-research) further before choosing to be in the study. You may choose not to be in this study if your insurance does not pay for your routine care (non-research) costs and your doctor will discuss other treatment plans with you.

4. Side effects and risks that you can expect if your child takes part in this study:

Common side effects are those that occur in more than 10 in every 100 children taking montelukast at the dose your child will receive. There have been no common side effects of montelukast in children who have taken this dose.
Rare side effects are those that occur in less than 1 in every 100 children taking montelukast at the dose your child will receive. These have included abdominal pain, nausea, vomiting, diarrhea, headache, dizziness, irritability, rash and fast heart rate.

5. Risks that are not known:

It is possible that your child may have discomfort while breathing through the mouthpiece. The FDA has reviewed this research and has approved the dose of montelukast your child will receive. However, there may be risks that we do not know about at this time.

6. Payment in case your child is injured because of this research study:

If it is determined by Vanderbilt and the Investigator that an injury occurred as a direct result of the tests or treatments that are done for research, then you and/or your insurance will not have to pay for the cost of immediate medical care provided at Vanderbilt to treat the injury.

There are no plans for Vanderbilt or the National Institutes of Health to pay for any injury caused by the usual care you would normally receive for treating your illness or the costs of any additional care. There are no plans for Vanderbilt or the National Institutes of Health to give you money for the injury.

7. Good effects that might result from this study:

a) The benefits to science and humankind that might result from this study include the use of montelukast at this dose to quickly make asthma attacks in children better. In addition, increasing our knowledge of how viruses in the air passages effects the response to treatment will improve how we can care for these children.
b) The benefits you or your child might get from being in this study include improvement of this asthma attack if she/he gets montelukast and if it works.

8. Other treatments your child could get if you decide not to have him/her in this study:

If your child is in this study, the emergency room doctors will treat him/her with medicines we currently use to make asthma attacks better. We will not have any control over these treatments and will not ask the doctors to change anything that they do.

9. Payments for your child's time spent taking part in this study or expenses:

We will send you a check for $40 for your child to pay for the time and effort that you and she/he give to this study.

10. Reasons why the study doctor may take your child out of this study:

If you child cannot do the tests or take the medicine (montelukast or placebo), we will remove your child from the study.

11. What will happen if you decide to stop having your child be in this study?

If you decide to stop being part of the study, you should tell your study doctor. Deciding to not be part of the study will not change your regular medical care in any way.

12. Who to call for any questions or in case your child is injured:

If you should have any questions about this research study or if you feel you have been hurt by being a part of this study, please feel free to contact Dr. Arnold at 615-936-4498. If you cannot reach the research staff, please page the study doctor at 615-579-0516.

For additional information about giving consent or your rights as a person in this study, to discuss problems, concerns, and questions, or to offer input, please feel free to call the Vanderbilt University Institutional Review Board Office at (615) 322-2918 or toll free at (866) 224-8273.

13. Clinical Trials Registry.

A description of this clinical trial is available on www.clinicaltrials.gov (study # NCT03277170), as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

14. Confidentiality:

All efforts, within reason, will be made to keep your child's protected health information (PHI) private. PHI is your child's health information that is, or has been gathered or kept by Vanderbilt as a result of their healthcare. This includes data gathered for research studies that can be traced back to your child. Using or sharing ("disclosure") such data must follow federal privacy rules. By signing the consent for this study, you are agreeing ("authorization") to the uses and likely sharing of your child's PHI. If you decide to be in this research study, you are also agreeing to let the study team use and share your child's PHI as described below.

As part of the study, Vanderbilt University Medical Center may share the results of your child's study and/or non-study-linked [breathing test results, viral tests], as well as parts of your child's medical record, to the groups named below. These groups may include people from the Federal Government Office for Human Research Protections, the VUMC Institutional Review Board, Vanderbilt University, and the National Heart Lung and Blood Institute. Federal privacy rules may not apply to these groups; they have their own rules and codes to assure that all efforts, within reason, will be made to keep your child's PHI private.

The sponsor and/or Vanderbilt may give or sell your child's health data, without identifiers, to others or use it for other research projects not listed in this form. The sponsor, Vanderbilt, Dr Arnold and his staff will comply with any and all laws regarding the privacy of such information. There are no plans to pay you or your child for the use or transfer of this de-identified information.

The study results will be kept in your child's research record for at least six years after the study is finished. At that time, the research data that has not been put in your medical record will be kept for an unknown length of time. Any research data that has been put into your child's medical record will also be kept for an unknown length of time.

Unless told otherwise, your consent to use or share your child's PHI does not expire. If you change your mind, we ask that you contact Dr. Arnold in writing and let him know that you withdraw your consent. His mailing address is Vanderbilt Children's Hospital, Emergency Department, Children's Way, Nashville, TN 37232. At that time, we will stop getting any more data about your child. But, the health data we stored before you withdrew your consent may still be used for reporting and research quality.

You have the right to see and copy the PHI we gather on your child for as long as the study doctor or research site holds this data. To ensure the scientific quality of the research study, you will not be able to review some of your child's research data until after the research study is finished. If you decide not to take part in this research study, it will not affect your child's treatment, payment or enrollment in any health plans or affect your ability to get benefits. You will get a copy of this form after it is signed.

Because this study is funded by the National Institutes of Health (NIH), it is conducted under a Certificate of Confidentiality. This Certificate keeps us from sharing your child's identifiable sensitive information gathered for research purposes unless you allow us to do so. It also keeps us from being forced to release your study information as part of a court, legislative, administrative or other proceeding. Identifiable sensitive information is information or bio-specimens (like the nasal swabs) gathered during the course of research in such a manner that there is a small risk of being able to identify your child from the information or bio-specimen that is gathered, if it is combined with any other information. There are times when the Certificate cannot be used. For example, we cannot refuse to give information to government agencies that oversee or fund research, such as the NIH, Department of Health and Human Services (DHHS) or Food and Drug Administration (FDA). The Certificate also does not stop us from giving information to local government agencies, law enforcement personnel or others if we suspect you or someone else is in danger or if we are required to do so by law.

The Certificate does not keep you from giving out information about your child and your child' treatment in this study. We will allow the release of some study information, such as lab test results, if you wish us to do so and you give us permission in writing. If you have any questions, please ask the study doctor or study staff.

15. Authorization to Use/Disclose Protected Health Information

All efforts, within reason, will be made to keep your child's protected health information (PHI) private. PHI is your child's health information that is, or has been gathered or kept by Vanderbilt as a result of your child's healthcare. This includes data gathered for research studies that can be traced back to your child. Using or sharing ("disclosure") such data must follow federal privacy rules. By signing the consent for this study, you are agreeing ("authorization") to the uses and likely sharing of your child's PHI. If you decide to be in this research study, you are also agreeing to let the study team use and share your child's PHI as described below.

If you decide not to take part in this research study, it will not affect your treatment, payment or enrollment in any health plans or affect your ability to get benefits. You will get a copy of this form after it is signed.

STATEMENT BY PERSON AGREEING TO BE IN THIS STUDY

I have read this consent form and the research study has been explained to me verbally. All my questions have been answered, and I freely and voluntarily choose to take part in this study.

Date	Signature of patient/volunteer

Consent obtained by:

Date	Signature	
	Printed Name and Title	Time