

Clinical trial aims to slow bone loss in dialysis patients

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Many people with chronic kidney disease rely on dialysis to perform some of the functions of a healthy kidney, like removing waste, maintaining safe levels of chemicals in the body and helping to control blood pressure. However, individuals who use dialysis experience very high death rates—the mortality rate is approximately 25 percent each year, which is higher than many cancers. Around 70 percent of these deaths are related to cardiovascular events, such as heart attack and stroke.

Cardiovascular problems in <u>dialysis patients</u> are not exactly the same as in the general population. They are related to calcification in the arteries of the heart, in the brain, and throughout the body. Approximately 80 percent of dialysis patients experience calcification that progresses aggressively. This calcification is caused by <u>bone</u> <u>loss</u>. Although everyone's body is continuously breaking down old bone and creating new bone, patients on dialysis cannot absorb or excrete the calcium generated through this process. The excess load of calcium then deposits itself in the soft tissues of the body, leading to <u>cardiovascular</u> <u>problems</u>.

Bone loss itself is also a health risk for dialysis patients, because it leads to bone and joint pain as well as increased <u>bone fractures</u>, which are also associated with high mortality.

At UK, a new clinical trial is trying to treat bone loss and thereby reduce or stop the progression of calcification in dialysis patients. The study, funded by the National Institutes of Health, offers participants an opportunity to be treated for their bone loss using one of two FDA-approved (nonexperimental) medications. Both medications are already in use in the <u>general population</u>. One medication is prescribed to patients who don't make enough new bone, and the other is for patients who destroy too much bone. Simple blood tests will determine which medication is best for

each study participant. Non-invasive measurements of bone loss and calcification will be taken to determine the benefits of the medications.

You might be eligible to participate in this study if you are on dialysis and are found to have osteoporosis (bone loss). There is no cost to participants, and you will be reimbursed for travel expenses.

To learn more, please contact Nedda Hughes or Tara Spach at (859) 619-5304, or you can contact them by email at nkhugh1@uky.edu and/or tara.l.spach@uky.edu. You may also find more information at UKClinicalResearch.com.

Provided by University of Kentucky



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