# A randomised, controlled clinical trial assessing the efficacy of;Lanreotide to halt disease progression in ADPKD

Published: 21-05-2012
Last updated: 26-04-2024

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| **Ethical review** | Approved WMO |
| **Status** | Recruitment stopped |
| **Health condition type** | Renal and urinary tract disorders congenital |
| **Study type** | Interventional |

## Summary

### ID

NL-OMON39497

**Source**
ToetsingOnline

**Brief title**
The DIPAK 1 Study

### Condition

- Renal and urinary tract disorders congenital
- Hepatic and hepatobiliary disorders
- Nephropathies

**Synonym**
Autosomal Dominant Polycystic Kidney Disease, polycystic kidney disease

**Research involving**
Human

### Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Groningen

**Source(s) of monetary or material Support:** Ipsen Pharmaceuticals,Nierstichting

## Intervention

**Keyword:** ADPKD, prevention, renal disease progression, somatostatin analogue

## Outcome measures

### Primary outcome

Difference in change in renal function in lanreotide versus not treated patients, as assessed as slope through serial eGFR measurements over time, with the value obtained at month 3 as first eGFR and the last eGFR available as last eGFR measurement for slope analysis.

### Secondary outcome

• change in renal volume (MRI),

• change in liver volume (MRI) in the subset of ADPKD patients with moderate tot severe polycystic liver disease

• quality of life (questionnaires)

• tolerability of Lanreotide

# Study description

### Background summary

Autosomal dominant polycystic kidney disease (ADPKD) is characterized by progressive cyst formation in both kidneys, leading to end stage renal disease. It is the most common hereditary disease, with a prevalence rate of 1 in 400 to 1 in 1,000 persons. The majority of patients also have progressive cyst formation in the liver, leading to pain and discomfort. At present there is no proven therapeutic intervention to slow down or halt disease progression in human ADPKD. The development of renoprotective treatments that are well tolerated, is therefore of major importance.

In this respect, somatostatin analogues are promising for especially polycystic

liver disease, but also for the renal phenotype. However, the studies that have been performed thus far, were underpowered and of too short duration to reach a definitive conclusion on the potential reno- and hepatoprotective efficacy of somatostatin analogues. Therefore, the present study is designed as a relatively large scale randomised clinical trial with sufficient duration of follow-up to investigate whether the somatostatin analogue lanreotide slows progression of polycystic kidney and liver disease in ADPKD-patients.

## Study objective

First, to demonstrate whether Lanreotide attenuates progression of the renal phenotype in ADPKD patients as measured by change in rate of renal function decline and change in renal volume. Second, to demonstrate whether Lanreotide modifies progression of the liver phenotype in the subset of ADPKD patients with moderate to severe polycystic liver disease as measured by change in liver volume.

## Study design

Multi-center, randomised, controlled, parallel arm investigator-driven trial to investigate the effect of the long acting somatostatine analogue Lanreotide versus standard care in subjects diagnosed with ADPKD based on the Ravine criteria (with number of cysts known from a previous ultrasound or magnetic resonance imaging [MRI]) The total study duration will be 34 months.

## Intervention

The patients will be divided into two groups. One group of patients will receive in addition to standard care a dose of lanreotide 120 mg sc every 28 days for 30 months. When eGFR falls below 30 mL/min/1.73m2 or in case of dose related side effects, down titration will take place. The other group of patients will receive standard care, for 30 months.

## Study burden and risks

When compared to routine clinical care the burden and risk associated with participation are:
• In general ADPKD patients with more advanced renal disease visit an out-patient department once every 3 months routinely. Therefore this study imposes 4 extra visits to an outpatient department when compared to routine care (screening, baseline, month 1 and 2)
• In general ADPKD patients with more advanced renal disease when visiting an out-patient department collect 24hr urine and blood is drawn for routine clinical chemistry. During the baseline visit and yearly teherafter extra blood will be drawn for biobanking and at each visit to the out-patient department 1 extra EDTA plasma tube and 1 extra serum tube will collected and for post-study

central assessment of creatinine and cystatin C concentration.
• 3 times a MRI of liver and kidneys (without contrast)
• 7 times a questionnaire
• half of the patients will be exposed to the somatostatin analogue lanreotide.

The potential benefit for participating subjects are that lanreotide may slow down the progression of ADPKD, thus ameliorating the rate of renal function decline in these patients, thereby potentially postponing the need for renal replacement therapy, and inducing less cyst growth, thereby potentially leading to less complaints that are related to cyst size and abdominal distension (e.g. abdominal pain, early satiety and dyspnoea).

## Contacts

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

**Age**
Adults (18-64 years)
Elderly (65 years and older)

### Inclusion criteria

1. Diagnosis of ADPKD, based upon the modified Ravine criteria;2. Age between 18 and 60 years.;3. eGFR (MDRD) between 30 and 60 mL/min/1.73 m2.;4. Providing informed consent.

### Exclusion criteria

1. Patients who, in the opinion of the study investigator may present a safety risk.;2. Patients who are unlikely to adequately comply with the trial*s procedures [due for instance to medical conditions likely to require an extended interruption or discontinuation, history of substance abuse or noncompliance).;3. Patients taking medications or having concomitant illnesses likely to confound endpoint assessments (e.g. nephrotoxic medications such as chronic NSAID, cyclosporine, lithium immunosuppressant use, and e.g. diabetes mellitus requiring medication and patients with proteinuria > 1 g /24hr).;4. Patients who underwent surgical or drainage interventions for cystic kidney disease the year before study-entry or are likely candidates for these procedures within 2 years of start of the study.;5. Patients taking other experimental (i.e., not approved by FDA/EMA for indication of ADPKD) therapies.;6. Patients having used Lanreotide (or another somatostatin analogue) in the 3 months before study start.;7. Patients known with intolerance for Lanreotide (or another somatostatin analogue).;8. Unwillingness to comply with reproductive precautions. Women who are capable of becoming pregnant must be;willing to comply with approved birth control from two-weeks prior to, and for 60 days after taking investigational;product.;9. Women, who are pregnant or breastfeeding.;10. Patients, who suffer from cardiac arrhythmia*s, that are considerd dangerous in combination with lanreotide.;11. Patients, who ever suffered from symptomatic gallstones, with the exception of patients who underwent a cholecystectomy.;12. Patients, who have a medical history of pancreatitis.;13. Patients, who have a medical history of infected liver cysts.

## Study design

### Design

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| Study phase: | 3 |
| Study type: | Interventional |
| Intervention model: | Parallel |
| Allocation: | Randomized controlled trial |
| Masking: | Open (masking not used) |
| Control: | Active |
| Primary purpose: | Treatment |

## Recruitment

NL

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| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 23-07-2012 |
| Enrollment: | 300 |
| Type: | Actual |

## Medical products/devices used

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| Product type: | Medicine |
| Brand name: | Lanreotide |
| Generic name: | Synthetic peptide, analogon of the natural somatostatin |
| Registration: | Yes - NL outside intended use |

# Ethics review

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| Approved WMO Date: | 21-05-2012 |
| Application type: | First submission |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |
| Approved WMO Date: | 30-05-2012 |
| Application type: | First submission |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |
| Approved WMO Date: | 04-12-2012 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |
| Approved WMO Date: | 26-11-2013 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |
| Approved WMO Date: | 13-07-2015 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |

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| Approved WMO Date: | 10-05-2017 |
| Application type: | Amendment |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |

# Study registrations

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

| Register | ID |
|---|---|
| EudraCT | EUCTR2011-005017-37-NL |
| CCMO | NL37608.042.12 |