Clinical Priorities Advisory Group Summary Report

Agenda item	4.4
Date of Meeting	11.05.2026-13.05.2026
Title of the Proposition	Lanreotide as a monotherapy for the treatment of symptomatic non-localised autosomal dominant polycystic liver disease (adults)
Unique Reference Number	2422a
Programme of Care	Internal Medicine
Clinical Reference Group	Hepatobiliary and Pancreas
Service/treatment status	*delegated*

Action requested

Support the adoption of the *policy proposition*

Recommended its relative prioritisation.

Summary of the proposition:

Abnormal liver function and liver failure is rare in polycystic liver disease (PLD). Most people with PLD have few to no symptoms and therefore do not require any treatment. However, for those otherwise defined as experiencing symptomatic PLD, symptoms can be broadly classified into two categories: mass effect resulting from the enlarged liver; and those which

are complications of the cysts (such as infection, torsion, rupture, and haemorrhage). Mass effect can result in symptoms including abdominal distention, early satiety, postprandial fullness, gastro-oesophageal reflux, malnutrition, dyspnoea, hepatic venous-outflow obstruction (Budd-Chiari syndrome), inferior vena cava syndrome, portal-vein compression and bile-duct compression.

Inside cells, a molecule called adenosine 3',5'-cyclic monophosphate (cAMP) plays an important role in controlling activities like multiplying cells and fluid production. In PLD, this pathway can become overactive, leading to the growth of fluid-filled liver cysts. Lanreotide, known as a somatostatin analogue, medicine that mimics a natural hormone called somatostatin. This attaches to specific receptors on cells and block the production of cAMP. This helps reduce the amount of fluid in liver cysts.

Injectable lanreotide, as a single therapy, is proposed as an alternative first-line treatment option for adult patients with symptomatic non-localised autosomal dominant PLD where individuals decline, are unsuitable for, or show incomplete response to non-surgical treatments to the cysts (aspiration sclerotherapy), the creation of an opening (fenestration) or surgical resection. Lanreotide is licensed for the treatment of excessive growth hormone secretion (acromegaly), certain neuroendocrine tumours and their related symptoms. The use of this medicine in PLD is off-label.

Clinical Panel recommendation:

The Clinical Panel recommended that the policy proposition progress as a routine commissioning policy.

If other, please specify below:

Assurances

The committee is asked to receive the following assurance:		
1.	The Deputy Director of Clinical Effectiveness confirms the proposition has completed the appropriate sequence of developmental and governance steps.	
2.	The Deputy Director of Acute Programmes confirms the proposition is supported by the following documentation (please tick the box where applicable)	
	Draft Clinical Commissioning *policy proposition*	☒
	Evidence Review	☒
	Public Health Evidence Report	☐
	Evidence to Decision Making (EtD) Summary	☒
	Equalities and Heath Inequalities Assessment (EHIA)	☒
	Prior Approval Form	☒

	Engagement Report	☒
	13Q Assessment and Patient & Public Voice Assurance	☒
	Clinical Panel Report	☒
	Policy Working Groupmembership	☒
	Other (please state if required)	☐
3.	The Deputy Director of Finance (Specialised Commissioning) confirms that the Impact Assessment has reasonably estimated a) the incremental cost and b) the budget impact of the proposal.	
4.	The Director of Clinical Commissioning (Specialised Commissioning) confirms that the Service and Operational Impact Assessments have been completed.	
5.	The Deputy Director of Quality and Nursing (Specialised Commissioning) confirms that the proposed quality indicators have been adequately defined (where applicable).	

Evidence Review Summary

In patients experiencing symptomatic PLD, what is the clinical effectiveness and safety of lanreotide compared with supportive treatment, octreotide or liver transplant?

Outcome	Evidence statement
Clinical effectiveness	
Critical outcomes	
Total liver volume	Total liver volume is important to patients as it is used to determine treatment success and requirement for further treatment. It might not be expected to reduce, and stabilisation may indicate treatment has successfully limited disease progression.
Certainty of evidence: High	**Lanreotide versus placebo or standard of care** One systematic review and meta-analysis (Griffiths et al. 2020) provided pooled evidence from 2 RCTs (pooled n=210), on total liver volume measured at treatment end (6 months in 1 RCT and 120 weeks in the other RCT). The intervention (lanreotide 120 mg intramuscularly every 28 days) was the same in both RCTs, but the comparators were placebo in one RCT and 'standard of care' in the other. One study assessed participants using CT and the other MRI. At treatment end lanreotide statistically significantly reduced total liver volume, mean difference was −0.14 L (95% CI −0.26 to −0.02; p=0.02). However, the reduction was not likely to be clinically meaningful using the default MCID for continuous outcomes. (**HIGH**) **The data from 2 RCTs, pooled in the systematic review and meta-analysis by Griffiths et al. (2020) provides high certainty evidence**

	that treatment with lanreotide statistically significantly reduces total liver volume at 6 months to 120 weeks, but the reduction is not likely to be clinically meaningful compared with placebo or 'standard of care'.
Certainty of evidence: not applicable (N/A)	**Lanreotide versus octreotide** No evidence available
Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Symptom control	Symptom control is important to patients because reduction of symptoms directly improves the patient's quality of life. This outcome is both a key indicator of the effectiveness of treatment and provides an insight into the patient's perception of the effectiveness of treatment.
Certainty of evidence: Low and very low	**Lanreotide versus standard of care or no comparator** One RCT (van Aerts et al. 2019; DIPAK-I RCT) and one prospective observational study (Temmerman et al. 2015) provided evidence related to symptom control measured from baseline to treatment end (120 weeks) in the RCT and at 18 months for the observational study. The intervention in the RCT was lanreotide 120 mg subcutaneously every 4 weeks, the comparator was 'standard of care'. In the observational study the intervention was lanreotide 90 mg subcutaneously every 4 weeks, with potential escalation in dose (to 120 mg), depending on response at 6 months. In the RCT symptoms were assessed using a 7-point Likert-like scale, ranging from 1 (none) to 7 (very severe). These were partially derived from the Gastrointestinal Symptom Score (modified on expert opinion for PLD symptoms). It is unclear if this symptom score was validated for use once modified. In the observational study which is at an increased risk of bias compared with the RCT, symptom control was assessed using the validated POLCA score domains (severity of perceived illness, gastroesophageal reflux disease related complaints, impact on food intake and perception of enlarged liver) and nutritional status (mean weight and Skeletal Mass Index (SMI)). In the RCT there was no statistically significant difference (p=0.1) between the baseline median symptom scores in the lanreotide (n=93) group (9.1, IQR 3.0 to 18.6) compared with 'standard of care' (n=82) group (6.1, IQR 1.5 to 15.5). At treatment end (120 weeks), median scores had increased in both the lanreotide group by 2.7 (95% CI 0.7 to 4.7) and in the 'standard of care' group by 2.6 (95% CI 0.5 to 4.7). There was no statistically significant difference between median symptom scores in the lanreotide group compared with the 'standard of care' at follow-up (p=0.9). (**LOW**) In the observational study (n=43) the mean [SE] severity score of POLCA (perceived illness) statistically significantly reduced (p<0.0001) from baseline 15.9 [0.9] to 9.8 [0.72] at 18 months. (**VERY LOW**) In the observational study (n=43) the mean [SE] severity score of POLCA (gastroesophageal reflux disease related complaints) statistically significantly reduced (p=0.001) from baseline 3.18 [0.6] to 1.67 [0.34] at 18 months. (**VERY LOW**)

	In the observational study (n=43) the mean [SE] severity score of POLCA (impact on food intake) statistically significantly reduced (p=0.04) from baseline 3.6 [0.38] to 3.0 [0.3] at 18 months. (**VERY LOW**) In the observational study (n=43) the mean [SE] severity score of POLCA (perception of enlarged liver volume) statistically significantly reduced (p=0.008) from baseline 6.8 [0.4] to 5.5 [0.5] at 18 months. (**VERY LOW**) In the observational study (n=53) the mean weight (figure in brackets not defined) of participants was statistically significantly lower (p=0.01) from baseline 72 [2.2] Kg to 70 [2.3] Kg at 18 months. (**VERY LOW**) In the observational study (n=37) the proportion (%) of participants with severe skeletal muscle depletion or sarcopenia increased from baseline (27%) to 18 months (38%) but the increase was not statistically significantly different (p not reported). (**VERY LOW**) **Data from 1 observational study (Temmerman et al. 2015) provided very low certainty evidence that treatment with lanreotide statistically significantly improved symptom control at 18 months compared with baseline scores. However, findings from 1 RCT (van Aerts et al. 2019) provide low certainty evidence that there is no improvement in symptom control compared with 'standard of care' at 120 weeks.** **Data from the observational study by Temmerman et al. (2015) provides very low certainty evidence that treatment with lanreotide results in a statistically significantly increase in the proportion of people experiencing weight loss.** **Data from the observational study by Temmerman et al. 2015 provides very low certainty evidence that treatment with lanreotide results in a statistically significantly proportion of people experiencing weight loss.**
Certainty of evidence: N/A	**Lanreotide versus octreotide** No evidence available
Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Quality of life	Quality of life is important to patients as it provides a holistic evaluation of an individual's general health and self-perceived well-being and their ability to participate in activities of daily living. Quality of life can inform patient centred shared decision making.
Certainty of evidence: Moderate	**Lanreotide versus standard of care** One systematic review and meta-analysis (St Pierre et al. 2024) provided evidence from 1 RCT (DIPAK-I, n=305) relating to quality of life measured from baseline to treatment end (120 weeks). The intervention in the RCT was lanreotide 120 mg subcutaneously every 4 weeks, the comparator was 'standard of care'. Quality of life was assessed using the 18-question ADPKD Impact Scale.

	At treatment end there was no statistically significant mean difference in quality of life −0.02 (95% CI −0.12 to 0.08, p=0.69) between lanreotide and 'standard of care'. (**MODERATE**) **Data from a systematic review and meta-analysis by St Pierre et al. (2024) provides moderate certainty evidence from a single RCT (DIPAK-I) that treatment with lanreotide does not statistically significantly improve quality of life compared with 'standard of care' at 120 weeks.**
Certainty of evidence: N/A	**Lanreotide versus octreotide** No evidence available
Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Important outcomes	
Imaging changes	Imaging changes are important to patients as they are used to help determine treatment success and requirement for further treatment. Imaging results might not be expected to return to normal, however, stabilisation may indicate treatment has successfully limited disease progression and may be associated with improvement in clinical features (see also the sections on total liver volume and total kidney volume which were undertaken using CT or MRI in the included systematic reviews and RCTs).
Certainty of evidence: Moderate	**Lanreotide versus standard of care** One RCT (Aapkes et al. 2021, DIPAK-I, n=249) provided evidence related to imaging changes (presence, number and size of gallstones) measured at baseline and at treatment end (120 weeks). The intervention in the RCT was lanreotide 120 mg subcutaneously every 4 weeks, the comparator was 'standard of care'. The outcome was assessed using MRI according to a standard protocol. At treatment end there was a statistically significant increase (p<0.05) in the number of participants with gallstones in the lanreotide group (18.5%) compared with the standard care group (8.8%). The difference remained statistically significant (p<0.0001) when adjusted for baseline presence of gallstones (number of participants with new incident gallstones) in the lanreotide group (15.3%) compared with the 'standard of care' group (0.8%). (**MODERATE**) The RCT reported that the statistically significant increase in new incident gallstones in the lanreotide group compared with 'standard of care' was seen in both univariate (OR 22.5, 95% CI 2.96 to 171, p<0.01) and multivariate logistic regression analysis (OR 25.9, 95% CI 3.37 to 199, p<0.01). (**MODERATE**) The RCT also found that lanreotide statistically significantly increased the number of incident gallstones for each participant compared to gallstones at baseline (p=0.004). However, the new incident gallstones were statistically significantly smaller than those present at baseline (p=0.001). (**MODERATE**)

	The DIPAK-I RCT (Aapkes et al. 2021) provides moderate certainty evidence that treatment with lanreotide statistically significantly increases the odds of developing gallstones and increases the number of gallstones present (per participant). However, the new gallstones seen at treatment end were statistically significantly smaller than those seen in participants at baseline.
Certainty of evidence: N/A	**Lanreotide versus octreotide** No evidence available
Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Patient adherence to treatment	Patient adherence to treatment is important to patients as it provides an indication of how satisfied patients are with treatment and how well they adhere to the treatment regimen.
Certainty of evidence: Low	**Lanreotide versus standard of care** One RCT (DIPAK-I, van Aerts et al. 2019) provided evidence for a group of participants (n=93) with ADPKD with PLD and hepatomegaly in the DIPAK-I RCT who were assigned to lanreotide 120 mg subcutaneously every 4 weeks. As the comparator was 'standard of care' there is no comparable control group data, and no statistical analysis was performed. The outcome was assessed as the number of participants requiring titration down or who discontinued the study medicine during the study period at baseline and at treatment end (120 weeks). In the RCT, lanreotide was titrated down in 23 of the 93 participants during the study period (to 90 mg in 20 participants and to 60 mg in 3 participants). Of these participants, 8 participants were titrated down due to eGFR reaching <30 mL/min/1.73m^2. Fifteen participants were titrated down due to adverse events (7 gastrointestinal complaints; 3 fatigue or malaise; 2 due to bradycardia; 1 hypoglycaemia; 1 hair loss and 1 liver cyst infection). Of the 15, 6 discontinued treatment with lanreotide due to continued adverse events despite titration down, 1 due to nephrectomy and 1 due to loss of confidence in the study medicine. In 6 out of 7 participants titrated down due to gastrointestinal complaints, the adverse effects were tolerable at the lower dose. (**LOW**) In total 18 patients (19%) stopped lanreotide at once, of whom 14 (15%) did so because of adverse events (4 due to fatigue/malaise, 2 due to renal cyst bleeding, 6 due to liver cyst infection and 2 due to gastrointestinal symptom. However, these data are uncertain due to inconsistent reporting. (**LOW**) **The van Aerts et al. (2019) study found that in a group of participants with ADPKD with PLD and hepatomegaly assigned to lanreotide in the DIPAK-I RCT, 23 out of 93 (21.4%) participants required the dose to be titrated down being taken during follow-up (120 weeks) and in total 18 out of 93 (19%) discontinued lanreotide. The main cause of lack of adherence to lanreotide (either the dose being titrated down or discontinuation) was due to deteriorating renal function and adverse events. Titration down of the dose may be preferrable to discontinuation for certain adverse events; however, this is non-comparative data and of low certainty.**

Certainty of evidence: N/A	**Lanreotide versus octreotide** No evidence available
Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Liver transplant **Certainty of evidence:** N/A	Liver transplant is important to patients as it identifies whether the intervention has been effective in the management of PLD and therefore the treatment burden associated with liver transplant is avoided. **No evidence was identified for this outcome.**
Renal function **Certainty of evidence:** Low and moderate	Renal function is important as some patients may have liver cysts as a result of ADPKD. Renal function may indicate an incidental systemic improvement beyond the liver. **Lanreotide versus standard of care or placebo** Two systematic reviews and meta-analyses (Griffiths et al. 2020 and St Pierre et al. 2024) provided evidence on different outcomes for renal function, using data from 2 RCTs (DIPAK-I and LOCKCYST). The intervention (lanreotide 120 mg subcutaneously every 28 days) was the same in both RCTs, but the comparators were placebo in one RCT (LOCKCYST) and 'standard of care' in the other (DIPAK-I). The follow-up period was 6 months in the LOCKCYST study and 120 weeks in the DIPAK-I RCT. One systematic review (Griffiths et al. 2020) provided pooled evidence, from 2 RCTs (n=304) on the mean difference in total kidney volume at treatment end. Treatment with lanreotide was statistically significantly associated with a reduction in total kidney volume compared with placebo or 'standard of care' at follow-up, mean difference −0.15 L (95% CI −0.21 to −0.10, p<0.00001). However, the reduction was not likely to be clinically meaningful using the default MCID for continuous outcomes. (**MODERATE**) One systematic review (Griffiths et al. 2020) provided evidence on the mean difference in estimated glomerular filtration rate (eGFR) at treatment end from 1 RCT (n=290). Treatment with lanreotide was not statistically significantly different from 'standard of care' at follow-up, mean difference −0.60 mL/min/1.73m^2 (95% CI −3.65 to 2.45, p=0.70). (**MODERATE**) One systematic review (St Pierre et al. 2024) provided evidence on the relative risk of a 30% or more decrease in GFR or kidney failure at the treatment end from 1 RCT (n=305). Treatment with lanreotide was not statistically significantly different from 'standard of care' at follow-up RR 0.72 (95% CI 0.43 to 1.20, p=0.21). (**LOW**) **The pooled data from both the DIPAK-I and LOCKCYST RCTs in the Griffiths et al. (2020) systematic review provides moderate certainty evidence that lanreotide treatment is associated with a statistically significant reduction in total kidney volume at treatment end, but this is not likely to be a clinically meaningful difference. Data from DIPAK-I RCT used in both systematic reviews (Griffiths et al. 2020 and St Pierre et al. 2024) provide low and moderate certainty evidence that lanreotide has no statistically significant effect on renal function at treatment end.**
Certainty of evidence: N/A	**Lanreotide versus octreotide** No evidence available

Certainty of evidence: N/A	**Lanreotide versus liver transplantation** No evidence available
Safety	
Safety	The safety of lanreotide is important to patients as it informs treatment decisions and allows comparison of interventional approaches.
Risk of death **Certainty of evidence:** Very low	**Lanreotide versus standard of care** One systematic review (St Pierre et al. 2024) provided evidence from 1 RCT (DIPAK-I) on the relative risk of death at the treatment end. The intervention was lanreotide 120 mg intramuscularly every 28 days compared with 'standard of care'. The follow-up period was 120 weeks. Treatment with lanreotide (1 death, n=154) was not statistically significantly different to 'standard of care' (0 deaths, n=155) RR 3.02 (95% CI 0.12 to 73.55, p=0.50). (**VERY LOW**) **The DIPAK-I RCT (included within the St Pierre et al. 2024 systematic review) provides very low certainty evidence that treatment with lanreotide has no statistically significant effect on mortality. However, this is based on only 1 death in the intervention group and none in the control group over a 120-week follow-up period.**
Number of serious adverse events **Certainty of evidence:** Very low	**Lanreotide versus standard of care** One RCT (van Aerts et al. 2019, DIPAK-I) provided evidence on the number and type of serious adverse events, and withdrawals due to serious adverse events for a subset of participants (n=175) with ADPKD with PLD and hepatomegaly in the DIPAK-I RCT. The intervention was lanreotide 120 mg intramuscularly every 28 days compared with 'standard of care'. The follow-up period was 120 weeks. In the lanreotide group 28 out of 93 (30.1%) had a serious adverse event compared with 10 out of 82 (12.2%) in 'standard of care' group. No statistical analysis is presented. (**VERY LOW**) **The van Aerts et al. (2019) study provides very low certainty evidence that, over 120 weeks, around a third of participants treated with lanreotide experienced a serious adverse event.**
Serious adverse events considered possibly related to lanreotide **Certainty of evidence:** Very low	**Lanreotide versus standard of care** One RCT (van Aerts et al. 2019, DIPAK-I) provided evidence on serious adverse events considered related to treatment with lanreotide, in a subset of participants (n=175) with ADPKD with PLD and hepatomegaly in the DIPAK-I RCT. The intervention was lanreotide 120 mg intramuscularly every 28 days compared with 'standard of care'. The follow-up period was 120 weeks. Thirteen of the serious adverse events were thought to be related to the intervention (hepatic cyst infection n=6 (6.5%), renal cyst infection n=2 (2.2%), pyelonephritis n=1 (1.1%), epigastric pain 1 (1.1%), fever n=1 (1.1%), urinary tract infection n=1 (1.1%) and cholelithiasis n=1 (1.1%)). This is compared to n=2 (2.4%) renal cyst infections and n=1 (1.2%) pyelonephritis in the 'standard of care' group. No statistical analysis is presented. (**VERY LOW**)

	The DIPAK-I RCT provides very low certainty evidence that, over 120 weeks, hepatic cyst infection is the most common serious adverse event possibly related to lanreotide.
Serious adverse events leading to study withdrawal **Certainty of evidence:** Very low	**Lanreotide versus standard of care** One RCT (van Aerts et al. 2019, DIPAK-I) provided evidence on the number of serious adverse events leading to study withdrawal in a subset of participants (n=175) with ADPKD with PLD and hepatomegaly in the DIPAK-I RCT. The intervention was lanreotide 120 mg subcutaneously every 28 days compared with 'standard of care'. The follow-up period was 120 weeks. The number of participants with a serious adverse event leading to study withdrawal in the lanreotide group was 4 out of 93 (4.3%) compared with 1 out of 82 (1.2%) in the 'standard of care' group. No statistical analysis is presented. (**VERY LOW**) **The DIPAK-I RCT provides very low certainty evidence that, over 120 weeks, very few of the serious adverse events led to withdrawal of the intervention.**
Safety **Certainty of evidence:** N/A	**Lanreotide versus octreotide** No evidence available
Safety **Certainty of evidence:** N/A	**Lanreotide versus liver transplantation** No evidence available

From the evidence selected, are there any subgroups of patients that may benefit from lanreotide more than the wider population of interest?

Outcome	Evidence statement
Total liver volume subgroup by sex	Total liver volume is important to patients as it is used to determine treatment success and requirement for further treatment. It might not be expected to reduce, and stabilisation may indicate treatment has successfully limited disease progression. One RCT (van Aerts et al. 2019, DIPAK-I) provided evidence on total liver volume by sex in a subset of participants (n=175) with ADPKD with PLD and hepatomegaly in the DIPAK-I RCT. The intervention was lanreotide 120 mg subcutaneously every 28 days compared with 'standard of care'. The follow-up period was 120 weeks. The study population included 40 males in each group, representing 43.0% of the lanreotide group and 48.9% of the 'standard of care' group. At baseline height-adjusted liver volume was statistically significantly higher in females (1654 mL/m) than males (1283 mL/m) ($p<0.001$). At treatment end (120 weeks) liver growth in the control group was similar in both men and women and there was no statistically significant difference in the percentage change in height-adjusted liver volume between males and females in the 'standard of care' group (no p value reported).

	At treatment end (120 weeks) there was a statistically significant mean percentage reduction in height-adjusted liver volume in women in the lanreotide group (−7.68%, p=0.001) compared with women in the 'standard of care' group. At treatment end (120 weeks) there was a non-statistically significant mean percentage reduction in height-adjusted liver volume in men in the lanreotide group (−4.05%, p=0.09) compared with men in the 'standard of care' group. The authors report that subgroup analysis provides evidence that gender did not appear to be an effect modifier for change in height-adjusted total liver volume (p=0.3). **The DIPAK-I RCT provides evidence that despite differences between genders in the percentage reduction in height-adjusted total liver volume between lanreotide and 'standard of care', gender does not appear to affect the effectiveness of treatment with lanreotide.**
Symptom control **Subgroup by responder status**	Symptom control is important to patients because reduction of symptoms directly improves the patient's quality of life. This outcome is both a key indicator of the effectiveness of treatment and provides an insight into the patient's perception of the effectiveness of treatment. One prospective observational study (Temmerman et al. 2015) provided evidence related to symptom control measured from baseline to treatment end at 18 months. The intervention in the observational study was lanreotide 90 mg subcutaneously every 4 weeks, with potential escalation in dose (to 120 mg), depending on response (a liver volume decrease of <100 mL) at 6 months (non-responders). Liver volumetry was assessed using CT scan. In the subgroup of responders (n=21), those with a liver volume decrease of >100 mL in the first 6 months, the mean weight statistically significantly decreased from baseline to 18 months from 72 Kg [SE 3.4] to 69 Kg [SE 3.4], p=0.006. The mean skeletal mass index in the responder subgroup also statistically significantly decreased from baseline to 18 months from 44.5 cm^2/h^2 [SE 1.6 cm^2/h^2] to 42.5 cm^2/h^2 [SE1.6 cm^2/h^2], p=0.001. In the subgroup of non-responders (n=22), those with <100 mL liver volume decrease at 6 months who were offered increased [120 mg] dose up to 18 months, the mean weight remained stable (data not reported). The mean skeletal mass index reduced in the subgroup of non-responders, but the reduction was not statistically significant, from baseline to 18 months from 42.5 cm^2/h^2 [SE 1.8 cm^2/h^2] to 41.6 cm^2/h^2 [SE 1.6 cm^2/h^2], p=0.13. **The prospective observational trial (Temmerman et al. 2015) provides evidence that participants in their study who responded to a lower dose (90 mg SC every 4 weeks) as assessed by a >100 mL reduction in total liver volume at 6 months had statistically significant decreases in weight and skeletal muscle index at treatment end compared with baseline, whilst in non-responders weight and skeletal mass index remained stable.**

In patients experiencing symptomatic PLD, what is the cost effectiveness of lanreotide compared with supportive treatment, octreotide or liver transplant?

Outcome	Evidence statement
Cost effectiveness	No evidence was identified regarding the cost effectiveness of lanreotide compared with supportive treatment, octreotide or liver transplant in patients experiencing symptomatic PLD.

Patient Impact assessment

The condition has the following impacts on the patient's everyday life:

- **mobility:** Patients have severe problems in walking about
- **ability to provide self-care:** Patients are unable to wash or dress
- **undertaking usual activities:** Patients are unable to do their daily activities
- **experience of pain/discomfort:** Patients have severe pain or discomfort
- **experience of anxiety/depression:** Patients are severely anxious or depressed

Further details of impact upon patients:
Polycystic liver disease (PLD) can present with a wide range of symptoms in a spectrum of severity. As the number or size of cysts increase, patients experience abdominal swelling leading them to experience acid reflux, sickness and feeling full very quickly, preventing adequate nutrition. The swelling can also lead to pain ranging from mild to severe, shortness of breath limiting mobility as well as restrict a patients ability to carry out activities of daily living. For those with diffuse cysts, management can be difficult with limited options which can lead to anxiety and depression around treatment. An individuals mental health may also be impacted through GP's having minimal knowledge on the condition and think of one's own mortality.

Further details of impact upon carers:
The loss of independence that sometimes comes with PLD symptoms can mean that people may feel a burden on their carers. Carers may be required to perform and support nearly all aspects of the patient's life, from bathing, clothing and mobilising. The caring role is full time and impacts on the carer's social and work life, and carers can become socially excluded and anxious in the same way as patients.

Considerations

Equality and Health Inequalities Impact Assessment (EHIA)	
Summary of any potential impacts of the proposal	The proposal may make a contribution to advancing equality of opportunity particularly for pre-menopausal women and trans-men with raised oestrogen levels.

	More information is required to understand the possibility of treating pregnant patients with lanreotide. As with all services, providers and health care workers must ensure access to information through appropriate communication methods and support health literacy for patients.

13Q Assessment

PPVAG outcome	*No consultation required*
Were PPVAG assured of the level of stakeholder testing?	*Yes*

Rare Disease Advisory Group

Not Applicable

Pharmaceutical

Yes

This clinical commissioning policy proposition is for the use of monotherapy lanreotide for the treatment of symptomatic non-localised autosomal dominant polycystic liver disease in adults. This recommendation is outside lanreotide's marketing authorisation, so use is off label. Lanreotide may be used in post-pubescent children by application of the NHS England's Policy 170001/P Commissioning Medicines for Children in Specialised Services (commissioning medicines children). Provider organisations must register all patients using prior approval software and ensure monitoring arrangements are in place to demonstrate compliance against the criteria as outlined, using separate prior approval forms for registration of adults and children.

Lanreotide is included on the NHS Payment Scheme Annex A, so is a high-cost drug.

National Programme of Care

The proposal received the full support of the Internal Medicine National Programme of Care Assurance Group