



Minimal Change Glomerulonephritis (GN)

This leaflet explains what Minimal Change Glomerulonephritis (GN) is and how it is treated, including possible side effects of medication.

What is GN?

Your kidney biopsy has shown that the fluid retention and protein leak (nephrotic syndrome) is caused by a condition called 'Minimal Change Glomerulonephritis'. This is a condition in the glomeruli (the filter units) of the kidney, which shows very little change looking down the ordinary microscope. More specialised tests (such as electron microscopy) on the biopsy show characteristic changes to make this diagnosis.

It is the commonest cause of nephrotic syndrome in children and causes about a quarter of those in adults. While the symptoms can be quite unpleasant, it usually does not cause long-term damage to the kidney function.

While many types of nephrotic syndrome cannot be treated, Minimal Change GN usually respond to steroid treatment.

Initial treatment

This stops the protein leak in 94 –100% of cases.

The main treatment is high dose *Prednisolone* (steroids) tablets for up to 16 weeks (although usually less time). You will be seen regularly, and once the urine is clear of protein, the dose will be gradually reduced over the following six months.

<i>Prednisolone</i>	1mg/kg of body weight (max 80mg) daily
<i>Lansoprazole</i>	30mg daily
<i>Alendronate</i>	70mg weekly
<i>Nystatin</i>	1ml four times a day
<i>Seprin</i>	480mg daily

As steroids may have many side effects, you will also be given additional medication to protect you from some of the more serious ones.

Some possible side effects of the steroids

- **Infection:** Steroids make you more prone to 'opportunistic infection' (so-called, because they only affect vulnerable people). You will be given antibiotics (*Seprin* and *Nystatin*), to protect against thrush and pneumonia. If you have had previous TB exposure, you will be given *Isoniazid*. If you develop fever, cough, sore throat contact us immediately.
- **Osteoporosis:** There is a risk that higher doses of steroids may weaken bones; you will be given *Alendronate* to prevent this.

- **Stomach irritation:** You will be given *Lansoprazole* to prevent irritation to the lining of your stomach.
- **Appetite:** Steroids nearly always increase appetite. To avoid gaining weight, you may need to be careful about the amount you eat. (Advice available from a renal dietitian in clinic.)
- **Diabetes:** High doses may affect your body's ability to handle sugar. Up to 20% of patients may develop temporary diabetes, some requiring treatment.
- **Skin and muscles:** Steroids may make the skin thinner and more likely to bruise and the larger muscles weaker.
- **Blood pressure:** A degree of fluid retention may cause the blood pressure to rise.
- **Mood:** Some patients find steroids cause mood disturbance – mood change, psychosis, and insomnia. If you are aware of this please talk to your GP or renal clinic doctor.

Dose reduction

Once the protein leak is clear, the steroid dose is reduced. This is done slowly, to make the chance of a relapse as small as possible. As the dose is reduced, any side effects will reduce and the protective treatment will gradually stop.

Month 1	<i>Prednisolone</i>	60mg	alternate days	
Month 2	<i>Prednisolone</i>	45mg	alternate days	stops <i>Nystatin</i>
Month 3	<i>Prednisolone</i>	30mg	alternate days	
Month 4	<i>Prednisolone</i>	15mg	alternate days	stop <i>Seprin</i>
Month 5	<i>Prednisolone</i>	10mg	alternate days	
Month 6	<i>Prednisolone</i>	5mg	alternate days	stop <i>Lansoprazole</i>
Month 7	Stop <i>Alendronate</i>			

Further information

Kidney Care UK website:

<https://www.kidneycareuk.org/about-kidney-health/conditions/nephrotic-syndrome/>

Contacting us

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To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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