APPENDIX 7

PATIENT INFORMATION FOR HYPERSENSITIVITY PNEUMONITIS (HP)

What is HP?
HP is also commonly known as Extrinsic Allergic Alveolitis and is a disease of the lungs usually caused by an allergy to something we breathe in (called an allergen). HP can result from breathing in allergens in the home or at work. When an allergen is breathed in some people will react to it causing inflammation and in some cases lung scarring (fibrosis). Causes of HP include exposure to mouldy hay in farmers (farmer’s lung), exposure to birds (bird or pigeon fancier’s lung) and numerous other causes. Some drugs can cause HP. Your doctor may ask you detailed questions about your home and work environment and your usual medication. Sometimes, patients develop HP and no obvious cause can be found.

Only a small number of people exposed to allergens become ill. Why some people get HP and some do not is not known.

What are the symptoms of HP?
HP takes two main forms with different symptoms:

Acute HP: In early disease the symptoms are always related to exposure to the allergen. Fever, flu-like symptoms with tiredness, headache and aches and pains and chest tightness, cough, breathlessness and occasionally wheezing occur typically several hours after exposure. These symptoms last a few hours, completely resolve and the patient usually remains well until exposed to the allergen again. These symptoms may start to occur many years after first exposure to the allergen.

Chronic HP: People who are continuously exposed to a small amount of the allergen may have less obvious symptoms that build up gradually. This can lead to lung scarring and long term lung damage. In the chronic form there are often no symptoms or only minor symptoms of fever and malaise and the main symptom of chronic HP is gradually progressive breathlessness initially on exertion. Weight loss may also occur.

How is HP diagnosed?
Patients with these symptoms are generally referred to a chest specialist. HP is usually suspected, by the combination of the appropriate symptoms (see above) and exposure to a known cause of HP such as pet birds. Most people will need the following tests:

- A chest x-ray. However this may be normal in early disease or may show lung scarring (fibrosis) in more advanced disease.
- Lung function (breathing) tests. These are performed to show how well the lungs are working and to monitor any progression in the condition.
- Blood tests. These are done to detect the presence of antibodies against the allergen, for example bird proteins in bird fancier’s lung or moulds in farmer’s lung. If you have been exposed to the allergen it is possible to have these antibodies but not necessarily become ill.
- A CT scan. This is a more detailed X-ray scan of the lungs.
In addition, some people may need a bronchoscopy which involves passing a flexible telescope down into the lungs to collect samples. Finally some patients may also need to have an operation with a general anaesthetic to remove a piece of their lung for more detailed tests. This procedure is called a surgical lung biopsy and sometimes is the only way of making a firm diagnosis.

If there is no obvious cause for HP, your doctor may arrange to sample the air at home or work in order to identify a possible cause.

**How is HP treated?**
The most important aspect of treatment is to avoid further exposure to the allergen. This may require the removal of birds, a change in employment or use of a specialist mask when exposed to the allergen. Failure to stop allergen exposure increases the chance that HP will progress to irreversible lung damage. In patients with severe disease, steroid treatment may be prescribed. Prednisolone is the most commonly used steroid drug and may be given for several weeks before gradually reduced according to response. Treatment may be required for up to three months and sometimes longer. Steroids have side-effects such as hypertension, weight gain, thinning of bones and diabetes and your doctor will discuss the benefits and risks of steroid treatment with you. In some patients with severe chronic disease, oxygen treatment may be helpful.

**What happens to patients with HP?**
If the causative allergen can be identified and withdrawn, patients with acute HP should make a complete recovery. However, they will remain allergic and the symptoms will recur, sometimes more severely than previously, if exposure to the allergen occurs again.

For patients who have chronic HP, removal of the allergen is likely to stop the disease getting worse although if lung fibrosis has occurred, symptoms may not resolve fully. Remaining exposed to the allergen will result in continuing and possibly severe lung damage.

**Further information**
This sheet contains general information about HP. As the disease affects different people in different ways, it is best to discuss your disease with your own doctor.