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To: All Patients

Subject: IMMUNOTHERAPY

Informational Packet for Allergy Immunotherapy

- You will have custom allergy extract bottles, so they will only be used on you.
- They will be billed when we mix them, which means you may not be in the office on the date of service.
- Bottles are billed with the quantity of each bottle multiplied by the quantity of shots expected for the time period. They expire shortly after that time period, so if you skip weeks you may not use the full amount billed before new bottles are made for you.
- We charge \$31 (**CPT code 95165**) per unit for your allergy extract bottles, (*so for instance if you have 3 bottles, and each bottle contains enough for 10 shots, your quantity billed will be 30*).
- Bottles are remade approximately every 2 months when you are every week, every 3-4 months when you are every 2 weeks, and every 6 months when you are every 3 and 4 weeks.
- We charge \$37 (**CPT code 95117**) for administration of the injections every time you get shots (quantity of 1 regardless of how many injections you are given).
- Please check with your insurance company and give the procedure (CPT) codes given above to see if you have a copay and/or deductible that will apply to each visit.
- Some insurance companies have plan maximums for the amount of visits per plan/calendar year for Allergy Immunotherapy. If your plan has a visit maximum, you will be responsible for all visits and bottles that are billed beyond the maximum.
- If you miss 10-12 weeks of injections (regardless of the frequency of your injections), you will need to start the process over from the beginning.
- If you feel sick, please call the office to see if you can get injections.
- You are expected to take an antihistamine the day of your injection to minimize the risk of a reaction. If you have questions, please ask the nursing staff.

This memorandum is to explain the risks, benefits and options involved in Immunotherapy. Along with the environmental controls for Allergens, it is one of the few interventions that actually treat the root cause of a patient's Allergies and/or Asthma. The most effective treatment of Allergy is avoidance of the substance which triggers the reaction. Although this is possible for allergies to foods or certain animal dander, it is impossible with Dust Mites, Molds, or Pollens. Therefore, Immunotherapy, or Allergy Injections may be the best alternative to control the symptoms. Medications can only alleviate symptoms. Allergy injections are known as Immunotherapy. Although Immunotherapy for allergies was first discovered in 1911, it has been over the last thirty years that it has become a true science. Immunotherapy decreases the body's sensitivity to Allergens. It raises the threshold of Allergen exposure necessary to produce symptoms. When Allergy injections are successful, patients have fewer symptoms and need fewer medications to control their Allergy symptoms. They are believed to work in a variety of ways. First, the injected Allergen causes the body's immune system to form blocking antibodies. These antibodies prevent the triggering of allergic cells by blocking the joining of the Allergen and the patient's antibodies to that particular Allergen. Secondly, a group of white blood cells in the body called B-lymphocytes are also down regulated to produce fewer antibodies. By producing less IgE antibody to Allergens there are less signals to trigger off the release of chemicals from allergic cells that cause the Allergy symptoms. In short, Immunotherapy is a way of reprogramming the immune system to react less violently to Allergens it sees as possible foreign invaders.

When beginning Immunotherapy, a very dilute dose of the Allergen is injected. It is necessary to inject with each different Allergen a patient may be allergic to, since Immunotherapy is very specific and only works for the particular things treated. Most patients begin their Allergy Injections on a once a week basis although some start on a twice a week basis. It can take as long as six to twelve months before feeling the effect of the injections. However, patients will usually feel improvement and continue to improve for several years. When patients have been doing well on a weekly basis and have reached the top level of concentration of extracts, we then stretch to a once every two weeks dosing schedule. Eventually we go to once every three weeks and finally to a once every four weeks schedule.

In addition to Allergy Injections, it is necessary to practice environmental control and to use medications appropriately.

Reactions can occur to Allergy Injections. The most common reaction is localized itching or redness at the site of the injection. There is occasionally bruising at the site of the injection since very superficial and small vessels may be penetrated by the needle. Although these bruises may be unsightly due to their superficial nature, they're generally not painful. Systemic reactions can occur with Allergy Immunotherapy. Most of these reactions occur within 30 minutes after the injections, although rarely they may occur up to several hours later. Generalized systemic reactions can include generalized itching, hives, coughing, shortness of breath, tightness in the chest or throat, nasal congestion and runny nose, nausea or vomiting. Generalized reactions are usually treated with antihistamines and/or adrenaline depending on their severity. Rarely a systemic reaction can become life threatening. It is because of this possibility **it is necessary to wait in the waiting room for 30 minutes after receiving your injections.** Allergy Injections must only be given in the presence of a physician prepared to treat a severe anaphylactic reaction. Although these reactions are very rare, a physician must be present to treat them if they do occur. Allergy Injections should never be given by a well-meaning friend, a nurse without the presence of a physician, or by the patient themselves.

Occasionally delayed local reactions can occur. This tends to happen more frequently with the Molds and occasionally with the Dust Mites. If you should notice itching or redness and swelling several hours or the next day after your injections, please note the size (i.e. nickel, dime, quarter) and report it before receiving your next injection. It is important if you do have any kind of a reaction to your Allergy Injections, to inform the medical staff of your past reactions previously to receiving your next set of injections. Patients should carry a liquid antihistamine with them after receiving their Allergy Injections in the event a delayed systemic reaction occurs.

Several conditions place patients at an increased risk of having a life-threatening reaction to Allergy Injections. The most common risk is having unstable Asthma or uncontrolled asthma. The second category has been patients who are taking beta-blocking medications. Beta-blockers are used for heart conditions, blood pressure control, and sometimes for migraine headaches.

The following drugs, Betagan, Betopic, Blocarden, Corziden, Inderol, Inderide, Lopressor, Normodyne, Sectrol, Tenorectic, Tenormin, Timolide, Tinoptic, Trandate, and Bisen, are all beta-blockers. In addition, new beta-blockers are arriving on the market. You should not receive Allergy Injections while on a beta-blocker. Please inform the nursing staff of new medications for your safety.

It is important to let the physician know if you are pregnant or plan on becoming pregnant in the near future. Women who wish to become pregnant should avoid all medications previous to becoming pregnant and during their pregnancy unless cleared by their OB/GYN physician first. Immunotherapy in some cases may be continued during pregnancy. However, adjustments in dosages are necessary. Please inform us immediately if you do become pregnant.

In Immunotherapy, each succeeding dose contains a higher concentration of Allergens building up to what is known as the Maintenance Dose. If a patient misses a scheduled Allergy Injection, a change in dosage is necessary. If a patient misses one week, the past dose will usually be repeated. If a patient misses more than a two-week period, often the dose will be cut back. **If a patient misses more than 10 or 12 weeks of injections, they will need to start the process over from the beginning.**

When changing extracts (a new lot of Allergy serum), it is often necessary for us to cut back in dosage of each patient's injections. It is also necessary to cut back the dosage patients receive during a particular pollen season so as not to overload their system or have an increased chance of having systemic reactions to the injections. This fine tuning of dosages is a routine and important part of Immunotherapy.

It is necessary to wait 30 minutes in the waiting room after receiving your Allergy Injections. It is also recommended not to perform any strenuous physical exercise involving the arms for 1 to 2 hours after receiving Allergy Injections.

If you have any questions or concerns, please do not hesitate to ask.