The pulsed dye laser is effective at treating port wine stains, redness and small broken blood vessels (telangiectasia). Port wine stains are a type of birthmark while redness and telangiectasia are usually the consequence of genes, sunlight and acne rosacea.

**THE PROCEDURE:**
The area will be photographed and your eyes shielded before the treatment. The laser fires small circles of light which feels like a rubber band flick followed by a burning feeling for about 10 minutes.

**POSTOPERATIVE COURSE:**
Immediate “bruising” (red-purple darkening) of the skin occurs and may worsen for a day before fading at 1-2 weeks. Swelling develops over 1-2 days, and may be marked, particularly around the eyes. Using ice packs (or frozen peas in a bag) every hour for 10-15 minutes on the day of the procedure can reduce swelling.

If you have had an internal eye shield, you will need to patch the eye for 4 hours and apply eye ointment (Chlorsig) twice daily for 3 days.

Shower and bathe the treated area as normal but gently pat the skin dry. Avoid shaving until the inflammation has settled. A moisturiser (e.g. aqueous cream) is often soothing and reduces the likelihood of crusting. If crusting does occur, use an antibiotic ointment (Bactroban ointment) 3 times daily to reduce the risk of infection.

Make up should be avoided for 1 week as removing it may produce damage to the skin which is fragile during this time. Avoid sports involving physical contact and do not take aspirin-containing compounds or anti-inflammatory medications until the bruising has faded.

Use sunscreen (Factor 30 or greater) during the treatment course. A sun tan makes the laser treatment much less effective.

The laser light is delivered in circles thus the first treatment will produce circles of lighter redness in a background of darker redness. Subsequent treatments will even out these obvious differences in colour but there may be some persistence of this patterned appearance. If the entire area is too large to be treated, there will be a line of demarcation between treated and untreated skin.

**COMPLICATIONS:**
1. It is reasonably common for the laser to lighten the pigmentation in the treated area. However, in almost all cases, the colour returns to normal some months after the final treatment. Some people, particularly those with olive or darker skin, develop some increased pigmentation in the treated area. Again, this almost always returns to normal but this may take some months to fade. Wearing sunblock helps prevent this and helps with faster resolution.
2. The risk of scarring is about 1%. The scars usually consist of small, circular, pale and slightly depressed areas. Usually only a very small part of the treated area is affected.
3. The aim of treatment is to lighten the red area. The amount of lightening achieved in the treatment of port wine stains is variable and we do not expect to completely eradicate the redness. Usually, after a number of treatments a point is reached where no further improvement occurs and treatment will be stopped.

In problems other than port wine stains, it may be possible to bring about complete resolution of the redness. This will be discussed with you at your first and subsequent appointments.

Usually, treatments will be carried out every 6-8 weeks.