The aim of this leaflet
This leaflet is designed to help you understand more about psoriasis in pregnancy and its treatment during pregnancy and when breastfeeding. It also discusses the management of your psoriasis before, during, and after your pregnancy.
Psoriasis in pregnancy and during breastfeeding

What is psoriasis?
Psoriasis is a chronic inflammatory skin disease affecting 2-3% of people in Europe. It is characterized by scaly red plaques on the elbows, knees and scalp. About 30% of patients with psoriasis have nail involvement and up to 25% will develop psoriatic arthritis (involving the joints). Psoriasis dramatically affects quality of life, and may interfere with normal daily activities.

There are several different types of psoriasis: chronic plaque psoriasis with dry red skin lesions (80%), guttate psoriasis with teardrop-shaped spots, palmo-plantar (involving the hands and feet), inverse psoriasis (affecting the flexural areas), and pustular psoriasis (which can flare significantly in pregnancy).

How is psoriasis in pregnancy diagnosed?
For most patients, psoriasis has already been diagnosed before pregnancy, so it rarely occurs for the first time during pregnancy. Psoriasis is easy to recognize by your dermatologist, but in some cases a skin biopsy may be required.

Occasionally, psoriasis can be confused with other skin diseases (eczema, drug-induced rashes, or other special skin dermatoses of pregnancy). It is helpful to tell your clinician if you have a past or family history of psoriasis before your pregnancy. Usually psoriasis improves during pregnancy, but it may worsen again after delivery.

Can psoriasis in pregnancy be cured?
No, psoriasis cannot be cured as it is a chronic disease with a genetic background, but there are many helpful ways of controlling it. Mild psoriasis usually responds well to therapy with topical corticosteroids.

Will my baby be affected by psoriasis?
In general, there is a low risk of passing on psoriasis to your baby. In women with active psoriasis, there is a slightly increased risk of having a lower birth weight baby or a baby that is too small according to your estimated date of delivery.

What are the treatment options in pregnancy?
There are several treatment options for pregnant or breastfeeding women with psoriasis. If you are planning a pregnancy, it is very important that you inform your clinician so that your treatment can be adjusted in advance.

Topical Treatments
(see separate leaflet, “Use of Steroid Creams in Pregnancy”)

- Moisturizers (emollient creams and ointments) should be applied once to twice daily to reduce skin dryness. Bath emollients and soap substitutes may also be helpful. Baths and showers should not be taken too frequently, as this can increase skin dryness.

- Mild to moderate topical corticosteroid creams and ointments can be applied to affected areas of the skin and are safe in pregnancy if used moderately. However, if the psoriasis is severe, a more potent topical corticosteroid preparation may be needed and is considered safe up to a total amount of 300g during the entire pregnancy. However, potent corticosteroid preparations should be applied for the shortest time possible as they may significantly contribute to the development of stretch marks (striae).

- Tacrolimus (Protopic®) ointment may be preferable for use on the face, breasts, and intertriginous areas, and is considered safe for use in pregnancy.
**Phototherapy**

Second-line treatment is light therapy or “phototherapy.” Narrow band UVB (ultraviolet B) light therapy is considered to be safe during pregnancy. Serum folic acid levels should be measured if treatment is needed in early pregnancy.

If the psoriasis is severe and/or occurs with psoriatic arthritis, then systemic treatment should be considered (together with your obstetrician, rheumatologist, and dermatologist).

**Systemic Treatment**

- Cyclosporine is safe to use in pregnancy (and is given to pregnant transplant patients). Potential side effects include high blood pressure and effects on the kidneys.
- Please note that Acitretin (Neotigason®) is teratogenic like thalidomide, meaning that it can damage an unborn baby. It is important to know that there is a need to avoid conception for at least 3 years after treatment with acitretin. That is why this medication should not be given to women in childbearing age.
- Furthermore, Methotrexate (MTX) is also highly teratogenic and must not be used in pregnancy or while breastfeeding. The product information recommends stopping MTX treatment for at least 6 months before trying to get pregnant.

Biological Treatments (for more information see the separate leaflet, “Use of Biologics during pregnancy”) Anti-Tumour Necrosis Factor (TNF) drugs are a type of biological therapy that helps to stop inflammation in psoriasis and other diseases. If a pregnant woman needs a biological treatment to control her disease, we know from studies that TNF-alpha antagonists seem safe, in particular during early pregnancy.

- Infliximab (Remicade® and biosimilars) and adalimumab (Humira®), both TNF-alpha antagonists, can be used in the beginning of pregnancy but should be stopped at 20 weeks of pregnancy. After this time, these drugs cross the placenta during the second and third trimester, thus increasing fetal drug levels. This can lead to a reduction in your baby’s ability to fight infection. For this reason, “live” vaccines should not be given for the first 6 months after birth.
- In contrast, due to structural reasons, the TNF-alpha antagonist called etanercept (Enbrel® and biosimilar) crosses the placenta significantly less. Certolizumab Pegol (Cimzia®) is not transferred across the placenta at all, and for this reason can be continued throughout the entire pregnancy if necessary.

For ustekinumab (Stelara®), IL-12/23 antagonist, there is less information available but some cases have shown no increased risk for mother and child. Also for our newer biologics (anti-interleukin [IL]-17 and IL-23p19) there are case reports. However, the recommendation is to stop those prior to pregnancy.

**Is a normal delivery possible?**

Yes, a normal delivery of your baby is possible.

**Can women with psoriasis in pregnancy still breastfeed?**

Yes. While taking Certolizumab Pegol/anti-TNF-alpha drug, women should still be encouraged to breastfeed as very small amounts get to the newborn child via breast milk. Any molecules that still get into the breast milk are broken down in the intestines of the newborn.

However, breastfeeding women are at risk of developing psoriasis around the nipple due to the “Koebner phenomenon” (that is, psoriatic lesions on parts of the body that are unusual) and therefore, application of emollients is important. If topical steroids
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or tacrolimus are applied to the nipple, they should be applied after nursing the child and washed off prior to breastfeeding to prevent oral ingestion by the infant.

What are risk factors/triggers for psoriasis?
Triggers for developing psoriasis include stress, weight gain, infections, and smoking.

Risk factors include a positive family history (genes) of psoriasis, as well as living away from the equator as psoriasis is more common in Northern European countries.

What are common comorbidities of psoriasis?
Psoriasis has many different associated diseases (comorbidities), which sometimes worsen during pregnancy.

The most common comorbidities include high blood pressure, metabolic syndrome (including hypertension, type II diabetes, and obesity). Furthermore, the incidence of cardiovascular disease is increased. Psoriasis patients suffer more often from depression than those without psoriasis. Inflammatory bowel diseases and uveitis (eye inflammation) can also be associated with psoriasis.

Therefore, treating your psoriasis during pregnancy can be more challenging because comorbidities such as hypertension and diabetes occur more frequently in pregnant women.

You should discuss these matters with your clinician. Usually, specialised clinics for patients with psoriasis in pregnancy are available in larger hospitals, and your clinician will be able to refer you to them.

While every effort has been made to ensure that the information given in this leaflet is accurate, not every treatment will be suitable or effective for every person. Your own clinician will be able to advise in greater detail.