

## Summary

I choose the topic of phototherapy because of my longlasting interest in this field. Phototherapy is defined as the therapeutic use of light, primarily ultraviolet light. The mode of action on the skin is described as photobiological one and it has been continuously investigated. At its most basic level phototherapy represents the application of energy to skin, which means the delivery of photons to chromophores, the absorption of photons in chromophores and the biologic reaction of photon's absorbed energy. This causes the formation of heat and various biochemical effects in the skin. Previously the main role of UV light in phototherapy was thought to be the antimitotic and antiproliferative. Nowadays it is clear that beside them the mode of action is rather immunomodulatory and immunosuppressive. Further possible mechanism of the UV light are detected with increasing investigation of the immune system of skin.

The rules and usages of phototherapy in practice at individual dermatological departments and offices differ and there is a need to improve and/or coordinate the protocols in order to reach the optimal risk/benefit ratio. That was one of the reasons for conducting the epidemiological study Phototherapy in Czech Republic. The results shows phototherapy to be an available and relative frequently used therapy that enables further utilization. The equipment with UV devices is quite satisfactory, with narrowband UVB and photochemotherapy PUVA been mostly used. This survey also detected the dermatologists' need and interest for protocols, phototherapy forms and written patients' educational and consent materials. Therefore I prepared the review of practical rules and protocols for UVB and PUVA phototherapy, the draft for structured phototherapy record form, counselling text and informed consent. Another consequence is the creation of database of phototherapy departments and offices for the website of the Czech Dermatovenerologic Society.

Although relative time consuming, patients consider phototherapy to be a comfortable and effective therapeutic method that is reflected by good adherence. But there is an certain inconvenience for the patient associated with frequent visits of medical department for treatment. For patients with poor accessibility of phototherapy center there is a possibility of home phototherapy but due to its demands on the patient and the physician it can be realized only in a small percentage of patients.

Even in the 21<sup>st</sup> century phototherapy remains an important therapeutic modality for many dermatoses due to its good efficiency, safety and patients' compliance profile and represents an essential part of modern dermatological therapy.