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## CONSENSUS STATEMENT FOR TREATMENT OF PORT WINE BIRTHMARKS IN STURGE-WEBER SYNDROME

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**Background:** Sturge-Weber Syndrome (SWS) is a sporadically occurring syndrome involving the skin, brain and eyes. The prominent dermatologic feature is the facial port wine birthmark (PWB), especially hemi-facial or mid-forehead. Consensus recommendations for treatment do not exist. This consensus aims to formulate evidence-based expert defined recommendations for treatment and referral with considerations for age and severity of disease.

**Study Design/Materials and Method:** Twelve national experts in dermatology were assembled as part of a larger consensus statement for the management and treatment of SWS. Experts in neurology and ophthalmology were consulted regarding brain and eye manifestations. Key topics and questions were formulated and included (i) evaluation of PWB and risk stratification; (ii) optimum treatment strategies; and (iii) recommendations regarding light-based therapies. A systematic PubMed search was performed. Evidence-based consensus recommendations were developed.

**Results:** Pulsed dye laser (PDL) is the gold standard for all PWB regardless of the lesion size, location or colour; however, other devices can achieve PWB lightening. Higher rates of side effects may be seen in patients with darker skin phototypes. Moderate energy densities, less pulse overlap and optimized cooling are recommended to minimize adverse effects. With proper preparation and training, laser surgery can be done safely in patients of all ages. The interval between PDL treatments depends on many factors and must be individualized. Greater rate of lightening, and possible prevention of darkening and some aspects of hypertrophy may be attained if treatments are started at an earlier age. Laser treatment causes significant discomfort. Measures to minimize pain should be utilized. Whether to use general anesthesia in young patients is a complex decision, which must be considered with informed parent consultation.

**Conclusion:** Recommendations developed by experts in dermatology were developed. These guidelines can help guide evidence-based discussions between patients with SWS and providers and improve patient outcomes.