PSORT
Psoriasis Stratification to Optimise Relevant Therapy

TECHNICAL SUMMARY

Biologic therapies for severe psoriasis are currently prescribed in a stochastic manner that is neither efficient nor cost-effective. The vision of the PSORT consortium is to better understand determinants of response to biologic therapies and deliver, in close collaboration with commercial partners, a PSORT stratifier (algorithm) to guide psoriasis management. This will optimise clinical pathways for psoriasis, inform the management of other less accessible immune-mediated inflammatory diseases and deliver health care savings. To deliver this vision PSORT has brought together a powerful grouping of world-leading psoriasis researchers, bioinformaticians, statisticians, health economists and industry partners. Patient representation informs the consortium which utilises NIHR and MRC funded platforms and an established, high-quality clinical bioresource the British Association of Dermatologists' Biologic Interventions Registry (BADBIR) involving 153 UK dermatology centres (5500 patients on biologic therapies by 2014). Two parallel, interlinked Work Strands will provide clinical, adherence, pharmacological, genetic, transcriptomic, and immune data in blood and skin on psoriasis patients treated with biologics. Deeply-phenotyped Discovery and Refinement cohorts sponsored by academia and industry are complemented by large scale validation in BADBIR and in a prospective clinical pilot study of minimal effective dosing of biologics. The data will be integrated and interrogated through TranSMART infrastructure enabling a combination of bioinformatics, machine learning and biostatistics for the discovery of drug response endotypes/biomarkers. Working with our partner diagnostics companies these will be scalable for clinical use. Operational management will be proactive and milestone driven with oversight provided by an Independent Advisory Board. It is anticipated that the PSORT consortium will be a major catalyst to deliver novel personalised medicine approaches in the management of psoriasis.