The use of GP questionnaires to assess psoriasis severity in The Health Improvement Network (THIN) database.

Dr Paula L Thompson¹, Stéphanie Chretin², Françoise Bugnard², Dr William C Maier¹, Tetsuro Ito³, Mike Spencer³ and Dr Gwilym Thompson³.

¹ REGISTRAT-MAPI, Hamilton House - Office 322, Mabledon Place, Bloomsbury, London, WC1H 9BB, UK.
² REGISTRAT-MAPI, 27 rue de la Villette, 69003 Lyon, France.
³ Janssen-Cilag, 50-100 Holmers Farm Way, High Wycombe, Buckinghamshire, HP12 4DP, UK.

Background & Objective
The natural course of psoriasis is not well described. To better understand this, data from The Health Improvement Network (THIN) database was used to capture detailed information on disease progression in patients with psoriasis. GP questionnaires will be used to assess psoriasis severity. This poster describes the proposed methodological approach.

Methodology

Study design
- Retrospective cohort study, using THIN data to describe the natural progression of psoriasis severity.
- Random sample of 5,000 patients with:
  - an incident psoriasis diagnosis between 1st January 2004 to 31st December 2006.
  - ≥2 READ codes corresponding to psoriasis, irrespective of the time period for recording of the second psoriasis code.
  - at least 3 years of data both before and after their psoriasis diagnosis (unless the patient died following diagnosis).
- patient flagged as ‘acceptable’ (PatFlag=A/C).

Database selection
A feasibility study was conducted to evaluate the availability and quality of four healthcare databases:
- the German Pharmacoepidemiological Database (Germany), the General Practice Research Database (UK), Health Search (Italy) and THIN (UK).

The THIN database was chosen due to the:
- number of psoriasis patients available during the study period.
- capture of prescriptions for psoriasis medications (with the exception of phototherapy and biologics).
- possibility to administer GP questionnaires to obtain further anonymised information.
- medical records are consistently updated and can be followed over time, enabling monitoring of severity progression.
- overall size and patient representativeness of the THIN database.

Limitations of THIN pre-collected data
The limitations of using pre-collected THIN data for this study are that psoriasis severity, phototherapy and biologic prescriptions, and hospitalisations may not be recorded.
- Psoriasis Area Severity Index is commonly used to assess psoriasis severity, but relies on GPs recording the body surface area affected.
- Phototherapy and biologics are usually prescribed in secondary care and are, thus, not captured in the pre-collected THIN data on a homogenous basis.

The following steps aim to overcome these limitations of the pre-collected THIN data:
1. derive an algorithm to classify psoriasis severity using pre-collected THIN data, developed according to UK guidelines.
2. administer GP questionnaires to collect information on phototherapy and biologics prescribing, hospitalisations for psoriasis-related conditions, and to assess the validity of the psoriasis severity classification algorithm.

Psoriasis severity classification algorithm
From the pre-collected THIN data, patients were classified based on the 3 months following their date of psoriasis diagnosis:
- mild-moderate psoriasis: no treatment or topical treatments only.
- moderate-severe psoriasis: systemic therapy and/or phototherapy and/or biologics and/or hospitalisations for psoriasis (in addition to any topical treatments).

GP questionnaires
Questionnaires will be administered to the GPs of a random sample of 300 psoriasis patients (100 mild-moderate and 200 moderate-severe) from the 5,000 psoriasis patients selected from the pre-collected THIN data to:
- obtain information on phototherapy and biologics prescriptions, and hospitalisations.
- assess psoriasis severity via collection of the patient’s body surface area affected by psoriasis.

Validity of the psoriasis severity classification algorithm will be assessed by contingency tables comparing the severity derived from the GP questionnaires with that from the pre-collected THIN data. Agreement will be assessed using Cohen’s K coefficient.

Conclusion
GP questionnaires can be used to overcome some of the limitations inherent to pre-collected THIN data.