intradermal test with vitamin K1 might be done, although caution is warranted not to sensitize the patient.

Conflicts of interest: The authors have declared no conflicts.

### OP1.04

## Allergic contact dermatitis to benzoyl peroxide within topical acne treatments

JDL Williams<sup>1</sup>, S Felton<sup>1</sup>, A Weidmann<sup>1</sup> and D Orton<sup>2</sup> <sup>1</sup> Salford Royal NHS Foundation Trust, Manchester, UK and <sup>2</sup> Buckinghamshire Healthcare NHS Trust, Amersham, UK

Benzoyl peroxide (BPO) is a recognized cause of allergic contact dermatitis (ACD). We report two patients presenting with florid facial dermatitis secondary to BPO in topical acne treatments.Case 1. A 20-year old patient was admitted to hospital with acute onset facial erythema and oedema 2 weeks after commencing topical treatment with Duac<sup>®</sup> gel (5% BPO and 1% clindamycin phosphate) for facial acne. Patch testing was performed to our hospital standard battery, the face series, parts of the plant series and other relevant allergens appropriately applied in Finn<sup>®</sup> chambers on Scanpor<sup>®</sup> (Epitest). There were positive reactions to BPO (++,D4) and Duac<sup>®</sup> 10% in aqueous solution (+++,D4). (Preliminary testing to Duac<sup>®</sup> 5% aqueous had been negative.)

Case 2. A 42-year old lady developed intense irritation, erythema and scaling whilst using Duac® gel and Quinoderm® cream (10% BPO) topically for facial acne. Prior to dermatological assessment she had performed 'home patch testing' to Quinoderm on her forearm which was 'positive'. She reported similar reactions previously to sunscreen products, certain cosmetics and fabric sticking plasters. Patch testing was performed to the standard series, cosmetic series, sunscreens with photopatch testing, BPO (1% pet) and to both Duac<sup>®</sup> gel and Quinoderm<sup>®</sup> cream. There were positive reactions to BPO (++,D4),  $\text{Duac}^{\textcircled{R}}$  (++,D4) and Quinoderm<sup>®</sup> (++,D4) in addition to colophonium (+,D4) and phenyl salicylate (+,D4). There are few reports of BPO in topical acne preparations causing ACD. Given the increased use of such acne treatments and the availability of Quinoderm® over-the-counter, we seek to highlight this source of exposure and the severity of reactions. Given that patients may be warned that such topical treatments can cause skin irritation, they may mistakenly believe that the early symptoms of ACD are attributable to an irritant effect and so continue their usage until reactions becomes more severe.

Conflicts of interest: The authors have declared no conflicts.

#### **OP1.05**

## Krak: first multi-centre study of the new polish baseline series

R Spiewak<sup>1</sup>, A Gregorius<sup>1</sup>, E Grubska-Suchanek<sup>2</sup>, A Cisowska<sup>3</sup>, K Jedrzejewska-Jurga<sup>4</sup>, M Pasnicki<sup>5</sup>, A Krakowski<sup>5</sup>, M Cendrowska-Pinkosz<sup>6</sup>, P Sznelewski<sup>7</sup> and R Olszanski<sup>8</sup> <sup>1</sup> Faculty of Pharmacy, Jagiellonian University Medical College, Krakow, Poland, <sup>2</sup> Medical University, Gdansk, Poland, <sup>3</sup> Dermatology Practice, Kamienna Gora, Poland, <sup>4</sup> Regional Centre of Occupational Medicine, Wroclaw, Poland, <sup>5</sup> NZOZ Allergicus-Dent, Zary, Poland, <sup>6</sup> Medical Centre 'Alergologia', Lublin, Poland, <sup>7</sup> Military Medical Institute, Warszawa, Poland, and <sup>8</sup> Dermatology and Allergy Practice, Gdynia, Poland **Background:** KRAK Study is a Polish multi-centre patch test study utilizing the new Polish Baseline Series (introduced in June 2010), which basically consists of European Baseline Series supplemented with two frequent and relevant sensitizers palladium and propolis. **Objectives:** To analyse KRAK Study patch test results with the new Polish Baseline Series.

**Methods:** Eleven participating dermatology and allergy centres submitted data of patients tested to the Polish Baseline Series (Chemotechnique Diagnostics) from June 2010 until October 2011.

Results: Altogether, 624 patients (475 women and 149 men aged 0 to 85, median 36 years) were patch tested in participating centres. At least one positive reaction was recorded in 370 patients (59.3%). In 255 patients (40.9%), at least one positive test was deemed clinically relevant (higher rates in children and adolescents: 65.4% and 46.5%, respectively). The top 16 sensitizers were nickel (33.5% positive; 24.7% deemed clinically relevant), cobalt (16.2% and 8.3%, respectively), chromium (14.7%; 7.1%), palladium (11.4%; 4.2%), paraphenylenediamine (7.4%; 3.8%), balsam of Peru (6.6%; 2.7%), fragrance mix I (6.3%; 3.4%), propolis (4.6%; 1.4%), fragrance mix II (3.4%; 1.6%), neomycin (3.4%; 1.0%), wool alcohols (2.6%; 1.4%), colophonium (2.4%; 1.6%), lyral (2.4%; 1.1%) MI/MCI 0.01% (2.1%; 1.6%), paraben mix and primin (each 1.9%; 1.1%). Noteworthy, the two additions to the Polish Baseline Series - palladium and propolis occupied ranks 4 and 8, respectively. Also interestingly, 10 patients (1.6%) reacted to palladium, but not nickel, suggesting that under modern environmental exposures palladium is not just a mere cross-reactivity to nickel, as commonly believed.

**Conclusions:** Polish patients are most frequently sensitized to metals and cosmetic ingredients. Natural remedies containing balsam of Peru and propolis should be avoided because of high sensitization rates. Our results confirm that palladium and propolis are frequent sensitizers and are important additions to the baseline patch test series.

Conflicts of interest: The authors have declared no conflicts.

#### **OP1.06**

# Evaluation of a tertiary prevention program for occupational skin diseases

R Brans<sup>1</sup>, SM John<sup>1</sup>, C Skudlik<sup>1</sup>, E Weisshaar<sup>2</sup>, R Scheidt<sup>2</sup>, P Elsner<sup>3</sup>, B Wulfhorst<sup>1</sup>, M Schönfeld<sup>4</sup> and TL Diepgen<sup>2</sup>

<sup>1</sup>University of Osnabrueck, Osnabrueck, Germany, <sup>2</sup>University of Heidelberg, Heidelberg, Germany, <sup>3</sup>Friedrich Schiller University, Jena, Germany, and <sup>4</sup>Clinic for Occupational Diseases of the VBG, Bad Reichenhall, Germany

**Background:** Occupational skin diseases (OSD) have been leading among occupational diseases in industrialized countries for years. Contact dermatitis (CD) is the most common OSD. In Germany, an interdisciplinary integrated (inpatient/outpatient) rehabilitation program consisting of an intensified dermatological treatment, health education and psychological intervention is offered for severe cases of OSD as a tertiary individual prevention measure since 1994 ('Osnabrueck Model').

**Objectives:** Evaluation of this interdisciplinary tertiary prevention program in a large cohort of patients with severe OSD.

**Methods:** In 2005 a prospective cohort multicentre study was initiated. 1788 patients with severe OSD (93.4% CD) were recruited until 2009 in five participating centres. Regular follow-ups of these patients for up to 5 years have been scheduled.