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Descriptive analysis of weaning practices and eczema prevalence in Irish infants in the Cork BASELINE birth cohort study

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Eczema affects 15–20% of children in developed nations[(1)]. There is controversy over the role of infant feeding and food allergy in the pathogenesis of eczema and a paucity of empirical data on weaning practices. As part of the Cork BASELINE longitudinal birth cohort study, we determined the point prevalence of eczema in a sample of well-characterised Irish infants at 6 and 12 months and collected prospective data on infant feeding and weaning practices.

Primigravidae were recruited antenatally at 20 weeks gestation and their infants were examined at day 2 and at 2, 6 and 12 months. Data collected include body composition at 2 d and 2 months using air displacement plethysmography (PEAPOD), anthropometry, socio-demographic information, maternal and paternal allergies, home environment, pets, skin care, hygiene, illnesses, medication, nutrition and behaviour. Weaning diaries were administered at 2 months and parents were instructed to record data from the beginning of weaning to solid food for a 6 weeks period.

Data extracted from weaning diaries include description of food including ingredients; quantity consumed and gap (days) between introduction of each new food. The 'Big 8' allergenic foods/ingredients (cow's milk, wheat, eggs, shellfish, fish, peanuts, tree nuts and soya[(2)]) were of particular interest. Babies that presented at the 6 and 12 month assessments with suspected eczema were evaluated according to the UK diagnostic criteria for eczema, SCORAD (SCORing for Atopic Dermatitis).

To date, 1337 babies have been recruited, of which 804 and 471 have been assessed at 6 and 12 months, respectively. Mean (SD) maternal age was 31 (3.7) years and 60% had a university education. Mean (SD) gestational age of infants was 40 (1.6). At 2 months, 50, 30 and 20% of infants were formula-, breast- and combination-fed, respectively. By 6 months, 25% of babies were still receiving breast milk, in addition to solid food, formula or both.

Data are described from 473 weaning diaries. The median age of first weaning to solids was 20 (3.5) weeks and 83% of infants were weaned between 17 and 26 weeks. Sixteen percent of infants were weaned early (<17 weeks), with 32 and 41% of those weaned at 15 and 16 weeks, respectively. First weaning foods were baby rice (68%), infant breakfast cereals (13%), carrots (6%), apple (5%) and other fruit/root vegetables (8%). The average gap between introduction of the first and second food was 6 d, which decreased to 3 d for foods thereafter. At least one of the Big 8 allergenic foods was present in 57% of weaning diaries; in particular wheat (38%), soya (28%) and cow's milk (33%). The point prevalence of eczema at 6 and 12 months was 15 and 7% among the 473 babies for whom weaning data are available.

Preliminary analysis shows eczema rates for Irish infants compared with international norms and that most weaning practices are broadly compliant with recommendations.

1. Irvine, AD & McLean, WHI (2006) *J Invest Dermatol* **126**, 1200–1202.
2. Sampson, HA (2004) *J Allergy Clin Immunol* **113**, 805–819.