beyond'. It is recognised that the prevalence of children with life-limiting conditions (LLC) is increasing. In Ireland the majority of children with LLC are cared for by paediatricians working in hospitals with no direct access to specialist paediatric palliative care (PPC) services.

This study was part of a learning needs assessment of paediatrician's training and experience in PPC.

Methods Consultants and Specialist Registrars in Paediatrics were approached by email and asked to complete a questionnaire regarding their learning needs in PPC. The Quality of Care Collaborative for Australia in PPC Project Research Study Group Learning Needs Assessment template was used with permission.

The questionnaire included both multiple choice and free-text questions. Quantitative data from the study has been reported elsewhere. Thematic analysis based on the approach of Braun and Clarke (2006) was used to analyse data provided in the free-text answers.

Results 114 paediatricians responded to the survey, 72 respondents (63%) provided free-text answers to the question 'Reflecting on your most recent clinical interactions with children requiring palliative care support. What were the challenges?'

On analysis, three overarching themes emerged, 'Best interests of the child', 'Inadequate training and confidence' and 'Co-ordinating care'.

'Best interests of the child' referred to the challenges experienced in ensuring that best interests of the child remain at the core of all decisions made when providing palliative care. This overarching theme included two sub-themes 'Complex communication' which referred to the challenges in managing parental expectations in increasingly technologically advanced healthcare systems and 'First do no harm' referring to the frequent ethical dilemmas that arise in PPC.

'Inadequate training and confidence' referred to lack of specific education in complex symptom management and also to lack of familiarity with community based healthcare services. The theme of 'coordinating care' encompassed the need to liaise with community services but also the need to provide holistic care to the whole family which may be unfamiliar paediatricians working in an acute hospital setting.

Conclusion This study explores the challenges experienced by paediatricians providing palliative care to children with LLCs. The themes provide insight into those experiences and provides valuable direction to support the development of future educational programmes in this important and rapidly evolving paediatric sub-speciality.

GP88

ENHANCING SERVICES FOR VULNERABLE CHILDREN AND FAMILIES THROUGH PUBLIC HEALTH NURSES PARTICIPATION IN A WORKFORCE CAPACITY BUILDING INITIATIVE AND INTERAGENCY AND PARTNERSHIP IN A LOW-INCOME IRISH COMMUNITY

¹Lynn Buckley*, ²Margaret Curtin, ¹Catherine Maguire, ¹Grace Walsh, ²Louise Gibson, ¹Katherine Harford. ¹Young Knocknaheeny, Cork, Ireland; ²University College Cork, Cork, Ireland

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Background The provision of high-quality support and care from pregnancy to age three can influence lifelong health and social outcomes. This is particularly the case for children born into intergenerational poverty. Evidence suggests that

progressive, targeted-universal approaches are most effective in enhancing early development outcomes, particularly when delivered through community-based infant health and well-being services.

In Ireland, Public Health Nurses (PHNs) provide the core nursing and midwifery care in the community working from a 'cradle to grave' model that span the lifecycle. This model requires PHNs to provide specialist early years support to vulnerable children and families within a largely generalist role. Additional training and engagement in innovative partnership can support PHNs to fulfil this role. Young Knocknaheeny (YK) is an interagency collaboration aiming to reduce child poverty and enhance child development (age 0 to 6) across four low-income Irish neighbourhoods. The programme is underpinned by an innovative Infant Mental Health (IMH) framework. Locally-based PHNs are key partners in YK and have engaged in a variety of initiatives. These included: an intensive IMH training and coaching programme; inter-disciplinary prevention and early intervention using an IMH framework, through a local *KidScope* paediatric clinic; working with YK Oral Language Officers to offer accessible speech, language and communication support to all parents with babies attending the 7 to 9 month developmental assessments (Babbling Babies clinic).

Aims The overall aim was to explore the impact of training, capacity-building and partnership working on services delivered by PHNs to vulnerable children and families.

Methodology This study formed part of a process evaluation of the YK programme undertaken between 2015 and 2017. A mixed methods approach was adopted. YK and *KidScope* administrative databases were analysed. Qualitative methods were used to gain PHNs perspectives on IMH training and their engagement with YK, *Babbling Babies* and *KidScope*.

Results Twenty-four PHNs participated in IMH training and on-going mentoring. 63% of children born in the area were seen at the Babbling Babies clinic. PHNs reported the IMH-informed 'common language' enhanced the quality of their interactions with community practitioners and with families. The partnership process further facilitated PHNs engagement with 'hard-to-reach' families.

Discussion/Conclusion The YK programme enhanced the capacity of PHNs to provide high-quality support to vulnerable families in the critical early years. The evaluation suggests that a shift in the current 'cradle to grave' PHN model towards a specialist early years PHN could improve health and well-being outcomes for children/families.

GP89

'TICK WITH TREAT'

¹Enrica Manca*, ¹Agostino Petraccaro, ²Carmela De Meco, ²Antonio Marseglia, ¹Rossella Giorgio, ¹Rosa Canestrà, ¹Sofia Siena, ²Michele Sacco, ²Massimo Pettoello-Mantovani. ¹Residency program in Pediatrics, University of Foggia, Foggia, Italy; ²Department of Pediatrics, Pediatric Unit, 'Casa Sollievo della Sofferenza' Scientific Institute, University of Foggia, San Giovanni Rotondo, Foggia, Italy

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Ticks can determine various local reactions, among which scarring and non-scarring inflammatory alopecia. We describe a case of non-scarring alopecia in a two-year-old girl of Romanian origin who reported a recent history of tick bite. She referred to our pediatric department with diffuse alopecia of the scalp, in which there was an erythematous

nodule, presumed site of the tick bite occurred two months prior. She did not develop fever, arthralgias or other systemic symptoms. In order to exclude autoimmune diseases and infectious etiologies, we performed laboratory exams, such as anti-thyroid, antinuclear, anti-transglutaminase, TORCH and anti-Borrelia antibodies, resulted negative. A punch biopsy specimen from the scalp (0.4×0.3×0.2 cm) revealed fibrosis of the derma and the peripheric areas of pili-sebaceous annexes. The following month, we observed a rapid centrifugal progression to total alopecia. Thus, we decided to attempt therapy with topic corticosteroids followed by a progressive hair regrowth during the following four months.

Tick bite alopecia was first described in 1921. Since then, a few other cases have been reported in the international literature. The characteristic manifestation is a single zone of alopecia, often with a centrifugal spread, that appears 1–2 weeks after the tick removal. Sometimes, it can be associated with a central eschar, representing the site of tick bite. The non-scarring forms of alopecia manifest as ‘moth-eaten’ patches or, in alternative, as nodular or blood-crusted lesions. Clinically, patients may present with pain, pruritus or swelling. The precise mechanism for hair loss is not well understood but it is assumed to be caused by the host inflammatory response to tick saliva antigens. The result is the destruction of hair follicles or the alteration of the catagen/telogen phase. Histologic findings may show a heterogeneous inflammatory infiltrate and areas of fibrosis. The international literature does not report effective therapy for tick bite alopecia, while treatment with topic corticosteroids for alopecia areata is recognized. Prognosis is favourable with a complete hair regrowth usually within 3 months, although in some cases alopecia is reported to persist for 5 years.

GP90

VACCINE INDUCED PERSISTENT SKIN REACTION WITH LOCALISED ACQUIRED HYPERTRICHOSIS

¹Susie van Robertson*, ²Geraldine Morrow. ¹Mayo University Hospital, Castlebar, Ireland; ²Northbrook Clinic, Ranelagh, Ireland

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Background Vaccine induced persistently itchy granulomas are described in the setting of aluminium adsorbed vaccine preparations.^{1–2} Acquired localised hypertrichosis (ALH) has been attributed to inflammation yet rarely reported at vaccination sites². A Swedish longitudinal study estimated the incidence rate of vaccine induced granulomas as 0.8%³. 77–95% of those where contact allergic to aluminium with sensitivity to aluminium decreasing over time³. The granulomas are reported to resolve spontaneously over a number of years.³ The Meningococcal B ‘Bexsero’ vaccine is aluminium adsorbed and given by intramuscular injection.

Case We present the case of a 3 year old female with a vaccine induced persistent subcutaneous nodule and ALH. At age 12 months she received an intramuscular injection of Bexsero to her left anterolateral thigh. Within 2 weeks she developed a subcutaneous nodule at the injection site with an associated intensely localised pruritus causing her discomfort. Examination revealed a non tender subcutaneous nodule with an overlying patch of lichenified eczema with prominent growth of fine brown hair. Unfortunately, the pruritus was recalcitrant to

treatment with occlusive dressings, emollients or application of 1% hydrocortisone cream. There was a good response however to topical Clobetasol but on ceasing application the pruritus flared immediately.

Her parents were reassured of the benign nature of the nodule and likelihood that a contact allergy to aluminium had developed. Caution with future aluminium exposure was recommended. They were advised that it may take up to a number of years, if at all, for the nodule to fully resolve and that studies into long term outcomes of the reaction are lacking. Nevertheless, their experience did not deter them from the national vaccination schedule. The patient has not experienced any further adverse reactions to vaccinations received.

Discussion Vaccine induced persistently pruritic subcutaneous nodules with ALH have been associated with aluminium adsorbed vaccines. The long term sequelae, if any, to this reaction is unknown. It is important for clinicians to recognise this reaction as a potential side effect so as to avoid unnecessary medical investigation.

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GP91

SCREENING FOR CYSTIC FIBROSIS RELATED LIVER DISEASE WITH ULTRASONOGRAPHY

¹Hannah Cooney*, ^{1,2,3}Shivanthan Shanthikumar, ^{1,2,3}Philip Robinson. ¹The Royal Children's Hospital, Melbourne, Australia; ²Murdoch Children's Research Institute, Melbourne, Australia; ³University of Melbourne, Melbourne, Australia

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Introduction Respiratory manifestations of cystic fibrosis (CF) have historically been the factor limiting prognosis. As there have been improvements in management of respiratory issues, increased screening and management of other manifestations of CF is required. CF related Liver Disease (CFLD) usually presents before or during adolescence and 5–10% of patients develop clinically significant disease. Diagnosis of CFLD is defined by two of the following; abnormal clinical examination, persistent liver function test (LFT) derangement or ultrasonographic evidence of disease. Available clinical guidelines for infants with CF recommend screening for CFLD. The Royal Brompton Care of Children with CF guideline and the CF Trust Standards of Care suggest routine abdominal ultrasound (US) screening from age 5. In contrast, the NICE guidelines do not specify an age at which to commence screening. Given the high treatment burden for patients with CF, we examined whether routine abdominal ultrasound screening for CFLD at age 5 leads to intervention or changes in clinical management.

Method We conducted a retrospective analysis of routine abdominal US screening conducted in CF patients at age 5, at the Royal Children's Hospital (Melbourne, Australia). The primary outcome measure was whether the US results led to a clinical intervention defined as treatment with ursodeoxycholic acid. Additional data collected included patient demographics,