**Abstracts**

**GP246** SPECIALISTS’ ATTITUDES TO VACCINATION TODAY: RESULTS OF THE QUESTIONNAIRE SURVEY

1Allia Petrova, 2Anastasiya Vanyarkina*, 3Svetlana Shugaeva, 4Lyubov Ryzhkova, 5Ekaterina Moskaleva. 6Scientific Centre for Family Health and Human Reproduction Problems, Irkutsk, Russian Federation; 7Irkutsk State Medical University, Irkutsk, Russian Federation

People’s attitude towards immunization reflects not only understanding of efficacy and safety of preventive vaccination, but also confidence to the health care system in general. Current decreasing of the confidence level to vaccination in the European region (in 2017 this index reached 83%) demands that specialists know how to improve and retain confidence to programs of immunization, and how to maintain accumulated experience of preventive vaccination.

**Aim** To assess the specialists’ attitude and knowledge about vaccination.

**Materials and Methods** Sixty-two specialists, working at Irkutsk Perinatal Centre (III Level), participated in an anonymous questionnaire survey, conducted from November to December 2018. The original questionnaire contained 12 questions on demographic characteristics, attitude to vaccination (including personal confidence in vaccines), and sources specialists usually use to know about vaccination. The following specialists participated in the survey: neonatologists (n=35), intensivists (n=15), pediatricians (n=7), obsteetricians (n=5). They belonged to following age groups: 21 to 30 years – 23 (37%), 31 to 40 years – 24 (38.7%), 41 to 50 years – 11 (17.6%), and older 51 years – 4 (6.6%).

**Results**

- **Positive C%**
- **No Growth**
- **Not Sent**
- **78%**

The charts of 41 Neonates with PICC lines, were reviewed. One hundred percent had a PICC Sticker inserted in the chart. Twenty-six ‘PICC Stickers’ (63%) had 100% compliance with all the 15 documentation criteria. Thirty-eight charts (92%) had 11 or more documentation criteria completed. There was 100% compliance with Date, time, Indication, Catheter type, Insertion Depth, time of x-ray, Position on x-ray, line taped at, ‘Line Suitable’ and Clinical Signature. The Documentation sticker with less than 100% compliance included catheter size 80% (33/41), measured length 95% (37/41), no change 75% (31/41) and with draw 95% (39/41).

- **Kappa score for correlation between Paediatrician and Radiologist was 0.637 (95% CI 0.394 – 0.880).**

This audit demonstrates significant improvement to the standard of clinical documentation (as Shown in Bar Charts).

**Conclusion** This audit shows that, following the introduction of a ‘CL Stickers’ quality Improvement initiative, there has been significant improvement in quality of documentation of PICC lines in the past 4-year period. While kappa scores for inter-observer variation for the radiological position of the CL has shown some improved since 2014, it remains low at 0.637.

**GP245** Figure 4 PICC linetip cultures

**Results**

All respondents considered vaccination as a safe and reliable method against infections. The majority (n=44; 71%) believed it was necessary to recommend parents not only compulsory vaccination, included in the National Vaccination Schedule, but also immunization according epidemiological indications and vaccination against currently widespread infections. Many respondents (n=53; 87.7%) considered necessary to lawfully influence parents’ decision not to vaccinate their children. More than half of specialists (n=37; 60%) vaccinated their children with both mandatory and recommended vaccines. Sixty six point one percent of respondents considered their knowledge about vaccination insufficient. At the same time, knowledge about vaccination was lower in age groups from 21 to 30 years and from 31 to 40 years (n=21; 91.3% and n=12; 50%, respectively). However the analysis of dependence between specialties and knowledge in all age groups did not reveal significant differences (p=0.6). Respondents received information about vaccination predominantly from reading specialized medical literature (n=50; 82.6%), during participation in conferences and workshops (n=39; 63%), and using specialized web resources (n=32; 51.6%).

**Conclusion** Despite having confidence in vaccination, many specialists notice the need to study this issue more thoroughly. Monitoring of doctors’ awareness on vaccination, creation of up-to-date specialized education media resources on immunoprophylaxis will not only enhance knowledge of specialists, but also maintain the confidence in vaccination in patients, and reduce the number of ungrounded refusals.

**GP247** EFFICACY OF INTRAVENOUS IMMUNOGLOBULINS IN THE PROPHYLAXIS OF INFECTION IN PRETERM AND LOW BIRTH WEIGHT NEONATES: A SCIENTIFIC LITERATURE REVIEW

1Cayla Bloomer*, 2Saad Sharif, 3Rizwan Khan, 4Niazy Al Assaf. 1University of Limerick, Limerick, Ireland; 2University College Dublin, Dublin, Ireland; 3University Maternity Hospital Limerick, Limerick, Ireland

**Background** Despite recent advances in critical care, infection remains one of the leading causes of mortality and morbidity...
in the neonatal population. Preterm low birth weight neonates represent the group at highest risk of infection, mainly attributed to immunodeficiency present at birth. Antimicrobial therapy remains the main strategy for prophylaxis and treatment of infection. However, due to associated adverse effects, research into alternative therapeutic strategies such as immunoglobulin therapy has been prompted. One of the most important immune developments occurs intrauterine. Between weeks 30–32, transplacental transfer of maternal IgG to the foetus begins, conferring passive immunity. There is an incremental rise in foetal IgG with gestational age, thus preterm low birth weight neonates are born with a true deficiency of IgG antibodies. As low serum IgG has been reported to increase the risk of infection, IgG replacement therapy offers hope of enhancing immune competence and decreasing infectious episodes in this vulnerable population.

**Aim** We aimed to assess the efficacy of IVIG therapy in the prophylaxis of infection in preterm and low birth weight infants.

**Methods** All published studies of intravenous humanised IgG antibody use for prophylaxis of infection in preterm (<37 weeks) and low birth weight (<2500 g) infants were reviewed from 1986 to present. Science Direct, Medline, PubMed and Google Scholar were used to retrieve studies using keywords ‘Neonatal sepsis’, ‘Immunoglobulins’, ‘Immune-modulation’, ‘Prophylaxis’, ‘Neonatal infection’, ‘Hypermaglobulinaemia’, ‘Systemic infections’, ‘Primary Immunodeficiency’. Studies which reviewed IVIG therapy in the treatment of infection, where IgG was administered intramuscularly and where the population was outside the definitions of low birth weight or preterm neonates were all excluded.

**Results** From our review, we note that the literature reviewed concluded that there was either no reduction to a very marginal reduction in infection rates in neonates.

It is conclusive that while IVIG may potentially confer some benefit in infection prophylaxis and potentially other subtler benefits, it does not demonstrate adequate prophylactic properties to justify routine use in preterm low birth weight neonates.

**Conclusion** While IVIG use is successful in treating hypermaglobulinaemia (low serum Ig) in primary immune deficiencies, IVIG does not confer the same benefits in infection prophylaxis for neonates. Reasons for this may be attributable to the complexity of the interactions between neonatal immunity and neonatal pathogens. Further research to better understand the mechanisms underlying immune deficiency in preterm and low birth weight infants is advised to offer insight into alternative therapeutic solutions.

---

**GP249  WHITE CELL COUNTS IN EARLY-ONSET NEONATAL SEPSIS – ARE THEY USEFUL?**

Sean Armstrong*, Ciara Terry, Richard Drew. Rotunda Hospital, Dublin, Ireland

10.1136/archdischild-2019-epa.308

**Aims** We compared newborn infants with positive blood cultures to a control group of negative cultures in order to establish the usefulness of WCC and Neutrophil values in predicting culture-positive Early-Onset Sepsis.

**Methods** All positive cultures less than 48 hours from birth in infants born in the Rotunda from 2001 to 2017 were identified. WCC and Neutrophil values at the time of culture were recorded, and compared to a similar cohort of infants aged less than 48 hours with negative blood cultures from 2001–2017. Data was analysed using MedCalc software.