G627

STUDY TO INVESTIGATE THE EFFECTIVENESS OF USING A HUMANOID ROBOT (KASPAR) TO IMPROVE THE SOCIAL SKILLS OF CHILDREN WITH AN AUTISM SPECTRUM DISORDER (ASD): A RANDOMISED CONTROLLED FEASIBILITY TRIAL

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Aims A growing body of research has shown that robots can be effective in improving the social communication skills of children with ASD, however randomised controlled trials (RCTs) are lacking. This feasibility RCT examined whether it is possible to deliver a social skills intervention using the Kaspar robot with children with ASD within the NHS.

Method Children with ASD aged between 5–10 took part in six therapy sessions targeting key social communication skills with a therapist. Children were randomised to therapy using the robot or with the therapist only. Parental stress and the child's social skills were assessed at three time points, using parent-reported questionnaires and video analysis.

Results The criteria for recruitment and data collection were met. Forty-five percent of those sent details of the study (42/94) agreed to take part. Of these, 38 were randomised and a further seven withdrew post-randomisation: an attrition rate of 26%. More than 80% of the questionnaires were completed. Some technical issues arose, which could be addressed in a full-scale study. Feedback from parents and clinicians was positive.

Conclusion The findings confirm the feasibility of a full-scale trial to determine whether Kaspar is an effective social skills intervention for children with ASD in an NHS setting.

G628

A RETROSPECTIVE STUDY TO UNDERSTAND EMERGING THEMES FROM USING LONG ACTING GUANFACINE – NON STIMULANT MEDICATION IN 70 CHILDREN AND YOUNG PEOPLE WITH ADHD (ATTENTION DEFICIT HYPERACTIVITY DISORDER) IN A SECONDARY CARE SETTING

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Aims As most clinicians have limited experience and are still not confident about using Guanfacine since its license in 2016 in UK, this study was undertaken to identify any emerging themes—any gender differences, comorbid factors and side effects which could impact on its usage.

Method Data was collected from clinical notes on all our patients on Guanfacine over the past one year.

This study looked at demographics, co morbidity, tolerance and dosage needed.

Emerging themes were identified in addition which could inform future studies on use of Guanfacine.

Results Age range 4–15 years (12 girls and 58 boys) received treatment with Guanfacine.

Comorbidity was seen in 48 patients (69%): Autism spectrum disorder was commonest (16), Developmental coordination disorder (13), Learning disability (10) some had other conditions e.g. Conduct disorder, tic disorder, dyslexia.

Guanfacine was discontinued in 36 patients (51%), the commonest side effect was sedation in 20 patients (29%) and other reasons for discontinuation included headaches, aggressive behaviour and ineffective control of ADHD symptoms.

The success rate was 98.8% in teenage girls.

The dose range was 1 mg (19) to 6 mg (1), and most patients (36) needed 2 to 3 mg for effective control of symptoms.

Conclusion It is small observational study and would be useful to have larger studies comparing the side effects and efficacy of low dose Guanfacine in teenage girls specifically across different regions.

Recommendations Low dose polytherapy regimes along with stimulant medication which would minimise side effects and improve overall efficacy should be explored in UK as is proven to be effective in other countries.

G629(P)

PILOT STUDY OF NEURODEVELOPMENTAL DIAGNOSTIC CLINIC MODEL IN SCHOOL-AGED CHILDREN, FOR WHOM THERE IS DIAGNOSTIC UNCERTAINTY REGARDING THE PRESENCE OF AUTISTIC SPECTRUM DISORDER

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Background Locally, neurodevelopmental assessment of primary school aged children with social and communication difficulties involves collation of reports from the educational setting, then assessment by a paediatrician. Often, no formal diagnostic tool or face-to-face multi-professional assessment is carried out. For some children, this model of working can lead to a delay in conclusions due to complexities with that child. This pilot was a model for multi-professional working between a paediatrician and clinical psychologist using structured assessments for a group of children that presented diagnostic challenge.

Aims To pilot a neurodevelopmental clinical model of joint working between a paediatrician and psychologist. To collect data regarding clinician and patient experience, time from initial referral to diagnosis and identify the advantages and pitfalls of this method of working. To provide information for the MDT reviewing the pathway for Autistic Spectrum Disorder (ASD) diagnosis.

Method Cases were selected by the paediatrician. Data collected included demographics, presenting problems, time from referral to receiving a final diagnosis, diagnostic outcome and experience feedback questionnaires. Diagnostic Interview for Social and Communication Disorders (DISCO) and Autism Diagnostic Observation Schedule (ADOS) assessments were carried out.

Results Thirteen children were enrolled in the pilot from 2017 to 2019 with a median age of nine years, four months. Eleven participants were male. Five of the children were given a final diagnosis of ASD. Other children received a

diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) or other cognitive or attachment difficulties. Six families completed feedback questionnaires. Most parents felt that the process helped their understanding of their child. Follow-up support was identified as an area for improvement. The clinicians found the process helpful, particularly with patients for whom there was disparity of opinion about that child.

Conclusion This model demonstrated positive patient experience, increased diagnostic accuracy and clinicians reported improved job satisfaction. It is likely to shorten initial referral to diagnosis time and offer a model of working that is closer to NICE guidance. Cost implications would need to be considered. Should this model of working be commissioned, areas for improvement would include follow up after diagnosis, and the robustness of the administration around the clinic.

G630(P) INNOVATIVE APPROACH -DEVELOPMENT OF A PATHWAY FOR FORMULARY APPROVAL FOR MEDICINES FOR THE TREATMENT OF YOUNG PEOPLE WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER IN A SECONDARY CARE SETTING IN WEST MIDLANDS, UK JOINTLY BY CHIEF PHARMACIST AND PAEDIATRICIAN (SPECIALIST) IN 2017

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Aims This innovative process was undertaken to examine the most effective route to ensure that young people consistently received evidenced-based cost-effective treatment for Attention Deficit Hyperactivity Disorder (ADHD)

Method A formulary approval pathway was developed for ADHD medication, following consultation, for a consistent approach.

A Specialist expressed interest in medication was reviewed by the formulary team, which involved a series of questions to be answered:

- Demonstrates evidence of benefit to the recipient and the health economy.
- Is there a strong evidence base for medication?
- In what cohort of young people should the medication be used?
- If accepted, would the medication be initiated or continued in primary care by General Practitioners (GPs), where a shared care protocol would be developed to ensure the roles and responsibilities of the specialist, GP and patient were clear to ensure appropriate prescribing and monitoring.

Results Following this appraisal, a positive evaluation and subsequent approval from the National Health Service (NHS) resulted in submission of application to the Area Prescribing Committee (APC) covering 3 cities, UK. The APC consists of varied healthcare individuals including the original sponsor to assess the formulary application and reach an informed decision. Once successful the medication is colour coded:

- Green enables all prescribers in health care to prescribe without restriction.

- Amber defines that initiation is performed by specialists in secondary care setting and prescribing transferred to GPs when the medication has been stabilised.
- Red requires initiation and maintenance only by the specialist.

Conclusion This pathway for the approval of medication to treat ADHD was designed in order to provide a consistent process and enable young people to receive evidence-based cost-effective treatment. This enables clinicians to have a transparent process across different health care settings.

Recommendation This approach can be transferred across regions in NHS (National health service) and would be useful to compare in future the processes in other regions/countries. An audit across the three cities and survey of clinicians about it would be useful to inform other practices.

G631(P) AN AUDIT OF PAEDIATRIC NEURODISABILITY MODEL OF CARE IN IRELAND

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Background It is estimated that 4% of children have complex on-going disability needs for health supports, with a further 10% having occasional needs for health intervention (HSE, 2009). A National Model of Care for Paediatric Healthcare Services in Ireland has been proposed by HSE for management of patients with neurodisability with an aim of providing best standard of care for children and young people with disability. However, there is paucity of data on the availability and ease of access of these available services; warranting this audit.

Aims

- To audit waiting period for accessing a facility for a patient with neurodisability
- To compare the waiting period in facilities inside the hospital vs in other hospital and in the community.

Methods A retrospective audit of referrals of patients with neurodisability in Paediatric department of Portiuncula University Hospital, Ballinasloe was done in July 2019. Referrals to medical and non-medical services including early intervention team were included in the study. Referrals for urgent transfer for any medical needs to a specialized setup were not included in the audit. The time at which referral was made was documented in 'weeks of life' of the corresponding patient. We audited the time at which referral was made and the time it got accepted for relevant action. Ease was access was ascertained average waiting time. We also audited the difference in time in intra-hospital vs inter-hospital referrals.

Results A total of 31 referrals were audited. Referral rejection percentage was 3%. Three percent of referrals were still awaiting appropriate response. A total of 9 emergency transfers within 6 months of life were documented. Average waiting period was 10 weeks with Standard deviation of 14.8 weeks. Waiting period for intra-hospital referrals (services available at PUH) was 0.8 weeks compared to 20.66 weeks for inter-hospital (for services at Dublin, Galway-ophthalmology, ENT etc) referrals. Waiting period for services in community was 5.2 weeks for EIT, social worker etc. Access to in