34–14941 to genes). For each module, we defined a quantitative measure of module membership as the correlation of the module eigengene with the gene expression profile. Modules were phenotypically stratified based on weight, age, mortality, and organ dysfunction. A heatmap plot was generated of the adjacencies in the eigengene network (figure 3). Genes from the significant modules showing high module membership were filtered and selected ($p_{MM} \leq 0.05$). Number of Genes related to trait included 740 (mortality) 2151 (weight) and 1616 (age). Weight was correlated high (r 0.53 and p value 0.003) with the purple module (MEpurple) to weight (figure 4).

Conclusions Our analysis shows that using the time series transcriptome in MenS, novel associations can be identified that could influence future treatment options for improved outcomes.

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EXPANDED CARRIER SCREENING: PRIMARY PREVENTION OF RECESSIVE MONOGENIC DISEASES EVALUATED USING 1,909 CHINESE GENOME AND EXOME SEQUENCING DATA

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Background Expanded carrier screening (ECS) is a genetic test that investigates the genetic composition of a couple and determines whether their offspring has an elevated risk of inherited disorders. Comparisons between commercially available ECS has, however, only shown small overlaps in common genes offered for screening.

Objectives Compiled with the inadequate information surrounding carrier frequencies in the Chinese population, secondary usage of next generation sequencing could be used in the optimization of ECS panels surrounding clinical utility, public health benefits, and reducing unnecessary socio-psychological stress.

Methods In this study, a total of 1543 Southern Chinese and 366 Northern Chinese genome and exome sequencing were screened for carrier status over 315 genes. The gene list curated for this study was compiled from three ECS panels offered by frequently used commercial companies and literature reporting high carrier frequencies for treatable inherited disorder in South East Asia population genomics.

Results 180 unique disease-causing variants were identified and 47.8% ($n = 738$) of Southern Chinese individuals screened in this study harboured at least 1 disease-causing variant. CNV calling determined 4 unique pathogenic or likely pathogenic copy number variants. A total of 285 unique carrier variants were classified as pathogenic or likely pathogenic. Results have also identified 12 genes with a carrier frequency over 1% including GJB2, HBA1/HBA2, SMN1, SLC22A5, SLC25A13, ATP7B, SLC26A4, GALC, POLG, USH2A, and HBB.

Conclusions This study shows that secondary analysis of NGS data can illustrate the carrier frequencies in the Southern Chinese population. Through the comparison of different commercially available ECS panels, we identified potential for improvement in the optimization of commercially available ECS panels for the future of precision medicine.

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DISCHARGE MANAGEMENT OF CHILDREN UNDER 5 WITH SUSPECTED ASTHMA IN A UK HOSPITAL

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Background The British Thoracic Society (BTS) recommends that children under 5 years of age who are admitted with suspected asthma should be discharged as per the BTS Asthma Discharge Care Bundle since this improves patient outcomes¹. Many children with suspected asthma are prescribed inhaled corticosteroids (ICS) to reduce airway inflammation². We suspected substandard discharge care of children under 5 hence decided to audit our practice.

Objectives

1. To assess compliance with the BTS asthma discharge bundle, for children under 5 admitted with suspected asthma, who were discharged on inhaled corticosteroids.
2. To improve and standardise the discharge planning of this group of children.

Methods Children with a discharge diagnosis of viral induced wheeze (VIW) or asthma, between 01/12/2018 and 31/11/2019, were provided by the hospital information department. Patient notes on iSOFT electronic patient record system were reviewed and those discharged on ICS were identified. From these, every other case in 'date of admission order' was selected and audited against the BTS bundle. This retrospective audit was approved by the trust.

Results Out of a total of 447 children discharged with VIW or asthma under the age of five, 123 patients were discharged on ICS and of these 62 were randomly selected for audit.

Only 9/62 (15%) patient records were 100% compliant with the BTS bundle. 22/62 (35%) were less than 50% compliant. 17/62 (27%) did not have any follow up (neither hospital nor community).

Abstract 172 Table 1

BTS discharge care standards	Compliance (n=62)
Community follow up within two days	13 (21%)
Importance of adherence to preventer medication discussed.	19 (31%)
Triggers considered- including smoke exposure.	24 (39%)
Specialist care follow up in a month.	27 (44%)
Inhaler technique assessed.	32 (52%)
Consultant appointment in 2–3 months.	41 (66%)
Inhaler use instruction provided.	50 (81%)
Medications reviewed prior to discharge.	55 (89%)
Written action plan provided.	59 (95%)

Conclusions The BTS discharge standards for children under 5 years with suspected asthma were not followed in the majority of children. The lack of follow up of many children who were discharged on ICS is particularly concerning, potentially sentencing them to long term ICS and consequent risk of side effects.

We recommend that shortfalls identified by this audit be addressed followed by re-audit after a year.

REFERENCES

1. British Thoracic Society. Improving Outcomes in Asthma- Asthma Care bundle. [Online] 22/4/2016. <https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/asthma/>
2. Price, John. The role of inhaled corticosteroids in children with asthma. *BMJ*. (2000), Vol. 82,2.

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ASSOCIATION OF DIGITAL MEDIA EXPOSURE AND ADDICTION WITH CHILD DEVELOPMENT AND BEHAVIOUR- A CROSS-SECTIONAL STUDY

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Background Digital media has undergone explosive revolution with the advent of portable gadgets and instant internet access. Early exposure and excessive screen use has negative influences across domains of early child development and also causes behaviour problems. There is paucity of data in our population with regard to the impact of latest technology gadgets as well as screen addiction.

Objectives Estimate the exposure and addiction of screen media among children in a developing country and its influence on early child development and behaviour.

Methods We included 613 children between 18 months and 12 years who visited the paediatric out-patient department for a well or a sick visit. Children with already diagnosed developmental delays and neurodevelopmental disorders were excluded. Their media exposure was analysed along with Problematic Media Use Measure Short Form (PMUM-SF) for addiction. They were screened for behaviour problems using the Child Behaviour Checklist (CBCL) for 1.5 to 5 years and Strengths and Difficulties Questionnaire (SDQ) for those beyond 5 upto 12 years. Those under five years were also subjected to a developmental screening using Ages and Stages Questionnaire (ASQ3).

Results The most common gadget used was television followed by smartphones. Median average daily screen time was 1.6 hours (inter-quartile range 1–3 hours). Female gender (OR 0.26 (95% CI 0.11 – 0.63); $p=0.003$) and children with average daily screen time of less than two hours [OR 0.092 (95% CI 0.018 – 0.48); $p=0.003$] had lesser chance of having concerns in the communication domain. Female gender also had less chance for pervasive developmental problems. Children with no physical activity (OR 8.5 (95% CI 1.48 – 48.57); $p=0.016$) use of tablet gadget (OR 3.1 (95% CI 1.07 – 9.02); $p=0.037$) and those with average daily screen time of greater than two hours (OR 3.95 (95% CI 1.34 – 11.67); $p=0.013$) had more chance of affective problems in the under five age group. Below average school performance, median average daily screen time of children, watching handheld video games, and parental concerns about child's media use with regard to addiction, exposure to violence, adult content and bad language, were found as significant predictors for screen addiction. Increased screen time and media addiction were significantly associated with concerns in communication, problem-solving and personal-social domains, as well as various behaviour problems. The most common device associated with addiction was tablet in the under five age group whereas it included smartphones, computer and video games in the older age group.

Conclusions We conclude that paediatricians should look into media use among children in their regular visit and formulate regional media guidelines for children to enhance digital literacy. This study done prior to the coronavirus disease (COVID) era, can serve as a baseline to assess further increase in screen time during the current COVID pandemic.

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THE USE OF TRANSITION TRANSFER DOCUMENTS TO FACILITATE TRANSITION FOR YOUNG PEOPLE WITH NEURODEVELOPMENTAL HEALTH NEEDS TO ADULT SERVICES

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Background The importance of a holistic transfer document highlighting a young person's (YP) needs to enable a smooth transition from paediatric to adult services has been well recognised. This has become especially apparent for young people living with neurodevelopmental health needs in recent years. To facilitate this process, a 'Transition transfer document' (TTD) exemplar for YP with a complex neuro-disability was co-produced with families and professionals.

Objectives

- To determine if transition transfer documents were routinely developed for YP with complex health needs by the age of 17.
- To determine if clinicians found the transition transfer documents or exemplar document useful.

Methods A search of electronic patient records was undertaken to identify young people aged 17 to 18 as of 01/07/2019 with a complex neuro-disability and an educational health care plan. 60 were identified and their records were reviewed. A SurveyMonkey questionnaire was sent to 11 paediatricians and 64 General Practitioners (GPs) alongside a TTD exemplar document. Data was entered and analysed using the Microsoft Excel formulaic analysis.

Results Complete documentation was available on 43 young people. One person had a TTD; the most appropriate clinic letter, containing the most relevant details to the transition

Abstract 175 Table 1 Summary of Analysis of TTDs and Clinic Letters

TTD or Clinic Letters indicating a clear statement of	Percentage
Diagnosis and health problems	95.3%
Learning abilities	58.1%
Medication	85.0%
Professional responsible for monitoring medication	32.5%
Professionals transferred to in adult services	37.2%
Discussion of an advanced care plan	5.3%
Equipment required in adulthood	34.9%
Young person involved in discussion	42.5%
Parents/carers consulted	97.7%
Psychosocial status considered	67.4%
YP's (and/or parents') personal goals and outcomes considered	53.5%
Contribution from other professionals	48.8%
Clinic/transfer letter easy to locate on SystemOne	0.0%