The chosen POCT was able to detect anti-tissue transglutaminase antibodies IgM, IgA and IgG. Anonymized information was inserted into a computer database, by means of a user-friendly interface. The information retained included the answers of the questionnaire and POCT results. The children who were found to have a positive POCT, as well as the children who had at least 5 symptoms, were recalled and offered further testing. POCT was validated, according to 2012 ESPGHAN guidelines, against reference results of histology or against another anti-TG2 antibody test with performance similar to anti-endomysial antibodies. Diagnostic accuracy and post-test probability were calculated using the all-purpose 4-fold Table Analyzer and the interactive nomogram for post-test probability offered by the page of the Center for Evidence Based Medicine (http://cebmjr2.ox.ac.uk/).

Results By screening 19,923 children, we found 137 POCT ‘positive’ cases. Out of 134 children who accepted and completed further investigations, 123 were positive at anti-TG2 antibody test and 11 negative. Final diagnosis of CD was made in 105 subjects. Eighty-three fulfilled the serological diagnostic criteria according to the new ESPGHAN guidelines 2020 and 56% of the diagnosed children had no symptom among 19584 children with POCT negative, 374 had 5 or more symptoms and 166 accepted further investigations: 2 resulted iTG positive and 4 borderline (< 2 times the upper limit of normal). In one case, CD was confirmed and investigations are pending in the other five. In the whole population, POCT sensitivity, specificity, positive and negative predictive values were 98% (96%CI, 95-100), 94% (93%CI, 90-97), 92% (93%CI, 87-96) and 99% (95%CI, 97-100), respectively. Likelihood ratio + was 15.3 (95%CI, 8.6-27.1).

Considering a pre-test probability of CD 1% in the general paediatric population regardless of symptoms and 42% (95% CI, 37-48) such as that found in our population also with 5 or more symptoms, post-test probability was 13% and 92%, respectively.

Conclusion As CD is largely under diagnosed, POCT, with its high negative predictive value may be a valuable tool for mass screening. It may also be valuable at the paediatrician’s office whereby in the presence of symptoms, a positive POCT result should prompt further testing.

1392 IRREVERSIBLE BLINDNESS IN TWO CHILDREN WITH AUTISM SPECTRUM DISORDER
Melanie Dean, Lakshmi Selvarajan, Daphin Fernandez, Peta Sharples, Denize Atan, Christine Spray. University Hospitals Bristol and Weston NHS Foundation Trust

Aims Atypical feeding behaviours and eating restrictions are prevalent in up to 89% of children with autism spectrum disorder (ASD). Known as avoidant/restrictive food intake disorder (ARFID), children with ASD often limit their intake to specific textures, colours and appearance. This results in a highly limited diet which can lead to significant nutritional deficiencies as highlighted by NICE in their 2021 update for ASD management.

Vitamin A, an essential micronutrient, is required for the maintenance of vision (particularly in low light), integrity and function of all mucosal and epithelial tissue, growth and development and a promotional and regulatory role within the immune system. It can only be sourced within our food, derived from fruit, vegetables and animal sources which are often lacking in the diet of those with ASD. Deficiency of vitamin A can have life altering consequences. Ocular symptoms, known as xerophthalmia, span conditions such as night blindness, conjunctival xerosis and bitot’s spots are characteristic of vitamin A deficiency, to its most severe form, rare and irreversible blindness as a result of corneal ulceration, scarring and necrosis.

Through the presentation of two paediatric case studies, IM a 13 y/o female and KB an 11y/o male, we aim to highlight the risk of vitamin A deficiency in children with autism leading to irreversible loss of sight.

Methods A retrospective review of the case notes was undertaken for IM and KB. Both children had autism and were diagnosed with irreversible visual changes secondary to severe vitamin A deficiency. Their journey from clinical presentation to diagnosis and management of their vitamin A deficiency is explored. Pervasive challenges and pertinent aspects are drawn out to raise awareness and aid future practice.

Results Both children had severely restricted diets containing no fruit or vegetables, consisting mainly of processed carbohydrates despite parents best efforts. IM presented to hospital following a collapse at home and was retrospectively found to have a 6-8 week history of deterioration in vision with a vitamin A level of 0.2 (normal range 0.8 – 2.2). KB had a rapid deterioration in vision and presented due to a change in behaviour. His vitamin A level was <0.1 and was attributed to dietary restriction. Both children found any hospital visit, particularly examination and investigations, highly distressing which created difficult barriers for their parents seeking medical attention.

Conclusion The nutritional challenges in children with ASD and ARFID are widely acknowledged. So too are the practical difficulties in monitoring and investigation for potential deficiencies in these patients. Nevertheless, the life altering implication of irreversible blindness caused by severe vitamin A deficiency warrants greater consideration in children with autism and hopefully preventable in future.

All children with restricted diets and autism, even if not formally diagnosed, should undergo nutritional assessment in the community and those considered at risk warrant nutritional bloods for early diagnosis and timely intervention.

1398 PAEDIATRIC NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD): A SINGLE CENTRE EXPERIENCE IN A NATIONAL PAEDIATRIC LIVER UNIT
Celia Exon, Lauren Johansen, Indra Van Mourik. Birmingham Women’s and Children’s NHS Foundation Trust

Aims NAFLD is emerging as the commonest leading cause of chronic liver disease in children/adolescents in western countries. Its incidence is increasing, and mirrors increase in childhood obesity.

Aim To review characteristics and severity of NAFLD in children referred to our dedicated NAFLD service.

Methods Retrospectively case note review of children under our care, diagnosed with NAFLD, over a 2 year period (2018-2020). Data collected: demographics, body mass index (BMI), ultrasound (USS), laboratory results, non-invasive markers of fibrosis (Enhanced Liver Fibrosis (ELF) score >10.5 and/or Fibroscan > 8kPa suggests increased risk of
advanced fibrosis as per NICE), evidence of metabolic syndrome and comorbidities.

**Results** 138 children (47F/91M), median age at first review 12 yrs (range 5-15), were identified and included. 4 (3%) children were of a healthy weight, 7% were classed as overweight and 85% as obese (BMI classification as per WHO standards). The median BMI at presentation was 31 kg/m² (range 20.9-47). All had hyper reflectivity on ultrasound, with 79/138 having transaminases above the upper limit of normal as well. Hepatic synthetic function was normal in all. 48/138 children had evidence of advanced fibrosis with an ELF score >10.5 in 3/138 (2%) and increased fibroscan score of >8kPa in 51/138 (37%). 2 children went on to have a liver biopsy showing steatohepatitis in both, with fibrosis in one and cirrhosis in the other. Comorbidities included type 2 diabetes mellitus (12), hypertension (10), renal dysfunction disease (8) and autistic spectrum disorder (10). There were no strong correlations between non-invasive fibrosis scores and HbA1c (0.2), ALT/AST (0.32) or BMI (-0.05).

**Conclusion** Presence of NAFLD should be suspected in all children with evidence of steatosis on USS. A normal BMI and a younger age at presentation do not exclude this condition. Although more associated in the adult population with NAFLD, we found a relative high proportion (35%) of our patients had evidence of more advanced liver disease based on non-invasive markers of fibrosis results. In our review no single parameter showed strong correlation with markers for advanced liver disease.

Children with suspected NAFLD should be referred to one of the National Paediatric Liver Centres for further assessment of fibrosis, to identify those with more advanced liver disease at an early stage. There is a need for further validation of non-invasive markers of fibrosis scores in the paediatric population.

**Results** A total of 40 JIA, 6 JDM, 27 JScl, and 6 JSLE PDF handouts, brochures, and pamphlets were found appropriate for analysis. Table 1 provides a summary of readability and reliability scores.

**Conclusion** Plain English parent information for Pediatric rheumatic diseases is easily accessible online. However, information does not meet the recommended standards for reading ease or reliability. This demonstrates that there is a need to develop additional easily comprehensible, good quality information aimed at parents of children with JIA, JDM, JScl, and JSLE. It also provides an opportunity to develop such resources in collaboration with families in order to provide better support to parents in understanding their child’s disease.

**Aims** Pediatric rheumatic diseases negatively impact the quality of life of children. Following Juvenile idiopathic arthritis (JIA), Juvenile dermatomyositis (JDM), juvenile scleroderma (JScl), and juvenile systemic lupus erythematosus (JSLE) are the most common Pediatric rheumatic diseases in the United States. Currently, there is no cure for these diseases, and treatment is focused on managing the progression of the disease and improving quality of life with the disease. Due to the complexity of these diseases, parents are heavily involved in decision making with regards to their child’s care. To achieve this, easily comprehensible, plain-English information is required to be able to understand their disease. The Internet is a medium for providing accessible information, and the importance of easily comprehensible online information is crucial for parents to learn and understand their child’s disease. This study assesses the readability and reliability of freely available online information aimed at parents of children with JIA, JDM, JScl, and JSLE from reputable English-language websites using standardized tools for measuring reading ease.

**Methods** A focused and methodical search was performed in Google Search, using the words ‘parent information,’ ‘juvenile dermatomyositis,’ ‘juvenile scleroderma,’ ‘juvenile systemic lupus erythematosus,’ and ‘juvenile idiopathic arthritis,’ abbreviations and synonyms Pages by advocacy groups, healthcare providers and universities were reviewed, while results from personal blogs or websites were excluded. For readability, reading ease, grade, and percentage of passive sentences were measured using the Flesh-Kincaid Score. For such information leaflets, the recommended reading ease is >70, 5th-8th grade with no passive sentences. For reliability, information was evaluated using the Health on the Net code (HONcode) seal accreditation, the Journal of the American Medical Association (JAMA) benchmark criteria, and the DISCERN score. The HONcode certification was recorded in the presence or absence of HON accreditation. The JAMA benchmark criteria ranges from 0-4, assessing comprehensiveness, ease-of-use, effectiveness, and intended audience. The DISCERN score ranges from 0-80, and is based on 16 questions that assess reliability.

**Results** 10.1136/archdischild-2022-rcpch.419

**Abstract 330 Table 1**

<table>
<thead>
<tr>
<th></th>
<th>JIA</th>
<th>JDM</th>
<th>JScl</th>
<th>JSLE</th>
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<tr>
<td>Mean Case Range</td>
<td>69.3 (59-77.8)</td>
<td>77.4 (67-87)</td>
<td>71.6 (61-81.5)</td>
<td>74.7 (65-76.4)</td>
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<tr>
<td>Mean Single Range</td>
<td>69.7 (59-77.8)</td>
<td>77.1 (67-87)</td>
<td>71.6 (61-81.5)</td>
<td>74.7 (65-76.4)</td>
</tr>
<tr>
<td>Mean Single Range</td>
<td>71.6 (61-81.5)</td>
<td>74.7 (65-76.4)</td>
<td>69.3 (59-77.8)</td>
<td>77.4 (67-87)</td>
</tr>
<tr>
<td>Mean DISCERN Score</td>
<td>69.3 (59-77.8)</td>
<td>77.4 (67-87)</td>
<td>71.6 (61-81.5)</td>
<td>74.7 (65-76.4)</td>
</tr>
</tbody>
</table>

**Aims** Up to 30% of children with IgA vasculitis (IgAV; previously Henoch-Schönlein Purpura) will experience at least one relapse of the disease, sometimes months or even years after the initial presentation. Those cases pose a diagnostic and