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OCD. She was taking regular desmopressin 100 mcg twice daily, hormone replacement therapy (HRT) and insulin degludec, and was using a closed-loop insulin pump. She had a history of recent ear infection, decreased oral intake and intermittent headache and was given antibiotic drops by her GP. Initial blood results in the emergency department (ED) showed a sodium level of 120 mmol/L (137–144), and blood glucose of 6.8 mmol/L. Inflammatory markers were normal and no abnormalities were found on computed tomography (CT) head. She was managed as a case of symptomatic hyponatraemia in ED with hypertonic saline, and desmopressin was withheld. The patient also developed diabetic ketoacidosis while on admission. Over the course of her hospital stay, both diabetic ketoacidosis (DKA) and hyponatremia were managed concurrently with insulin, intravenous (IV) fluids and titration of desmopressin according to her sodium levels, with strict monitoring of fluid balance.

## Results and Discussion

Hyponatraemia is a common clinical problem in patients with Wolfram syndrome and requires careful management because most patients have concurrent diabetes mellitus and bladder dysfunction.<sup>3</sup>

Arginine vasopressin deficiency, a component of Wolfram syndrome, leads to polyuria. This is managed with desmopressin, which is an analogue of ADH. When administered, patients will have unsustainable ADH activity, leading to an inability to excrete excess water normally. This would lead to fluctuations in sodium levels; hence, serum sodium levels need to be measured after 1–2 days and, when levels have stabilised, then measured once or twice yearly. Thus, dose titration of desmopressin is crucial and requires input from endocrinologists.<sup>3,4</sup>

## Conclusion

Hyponatraemia can complicate the management of desmopressin-treated diabetes insipidus in Wolfram syndrome. Dose titration with expert input from endocrinologists, fluid management, as well as patient education, are all crucial in managing this common electrolyte imbalance.

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**Coeliac disease on the rise: the COVID-19 vaccination hypothesis**  
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## Introduction

Coeliac disease (CD) is a common lifelong autoimmune condition, more frequently diagnosed in women, with a global prevalence of 1–2%. Its broad clinical spectrum necessitates careful suspicion for timely diagnosis. Over the past 2 years, we have observed a sharp rise in cases, coinciding with the post-pandemic era,<sup>1</sup> prompting this study. Some re-

search suggests that viral infections may trigger autoimmune diseases, such as CD.<sup>2</sup> This study explores the potential link between the surge in cases and factors such as infections and vaccinations.<sup>3</sup>

## Method

In this retrospective analysis, the medical records of a cohort of 454 patients were categorised according to date, age, gender, clinical manifestations, CD serology and histopathological findings. Data on vaccine type and dosage were analysed to explore a potential association.

Results were classified as follows:

Positive CD diagnosis: confirmed by serology and/or histopathology;

Negative CD diagnosis: both serology and histopathology results were negative;

Borderline CD: serology results fell within the grey zone, and histopathology was insufficient for a definitive diagnosis according to the Marsh-Oberhuber classification (stages 0 & 1).

Subdivisions: each diagnostic category was further subdivided based on vaccination status (vaccinated, unvaccinated, or unknown).

Gender analysis: results were also evaluated by patient sex.

## Results

The results showed that 47.4% of the cohort tested positive or borderline for CD, including 32.8% of vaccinated patients who experienced symptoms during and after the coronavirus 2019 (COVID-19) pandemic. Notably, positivity increased among men, deviating from typical patterns.<sup>4</sup> Many files lacked infection status, and genetic studies were not conducted because of cost, highlighting the need for further research.

Figure 1 visually represents CD diagnoses based on vaccination status using serology/histopathology results. It categorises patients into vaccinated (orange), unvaccinated (blue) and unknown status (green). Among vaccinated patients, 204 tested negative, while 149 were positive/borderline for CD. In the unvaccinated group, 33 were negative, and 37 were positive/borderline for CD. In the unknown group, 20 tested negative, and 11 tested positive/borderline for CD.

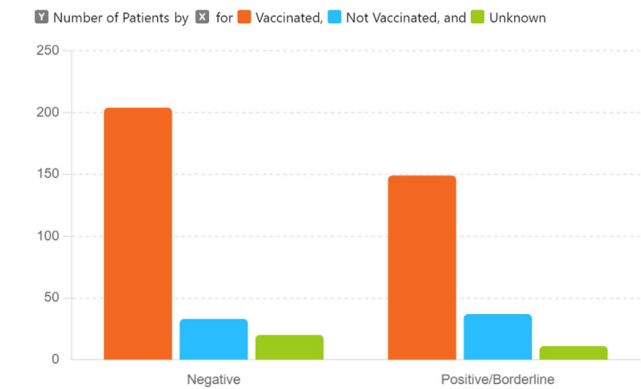
This breakdown suggests a notable CD prevalence, raising clinical suspicion about a link to COVID-19 vaccination/infection. The Chi-square value (6.18) supports this, but the p value (0.186) exceeds the statistical significance threshold (<0.05). While not statistically significant, the post-pandemic case surge may hold clinical significance.

## Conclusion

To conclude, the data point toward an increasing trend in CD diagnosis, putting us at the forefront of managing a serious autoimmune systemic illness that carries a significant burden on healthcare. There are a few potential factors contributing to this trend, including:

- Enhanced awareness and increased availability of diagnostic tools;
- Suboptimal processing techniques of gluten-containing foods may increase immunogenicity;
- The possibility of an immunomodulating effect of the COVID-19 virus and its vaccine on the immune system.<sup>5</sup>

Case reports suggest COVID may contribute to autoimmune diseases, such as rheumatoid arthritis.<sup>6</sup> Despite lacking statistical significance, the data do not justify accepting the null hypothesis. The potential link between CD and COVID-19 vaccination/infection requires further study through larger prospective and retrospective studies.<sup>7</sup>



**Fig 1.** Coeliac disease in relation to COVID-19 vaccination status.

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**Closing the clinical gap: an audit of clinical compliance for early-onset neonatal sepsis management**

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**Introduction**

Early-onset neonatal sepsis (EONS) has been recognised as the third most leading cause of neonatal mortality globally, requiring prompt recognition and intervention.<sup>1</sup> The 2022 incidence of EONS in the UK was reported to be 0.7 per 1,000 live births.<sup>2</sup> The National Institute for Health and Care Excellence (NICE) quality standards, QS75, provide a framework for neonatal sepsis management.<sup>3</sup> This audit retrospectively evaluated adherence to these standards in a secondary care neonatal unit.

**Methods**

A retrospective audit of 56 neonatal cases of suspected or confirmed EONS over 2 months in 2024 were assessed for compliance with NICE

QS75. Data collection focused on intrapartum antibiotics prophylaxis (IAP) administration, neonatal risk assessment, timing of first antibiotic dose, adherence to 36-h antibiotic review and communication with parents.

**Results and Discussion**

The audit results revealed variability in adherence to NICE QS75 (Figs 1 and 2).

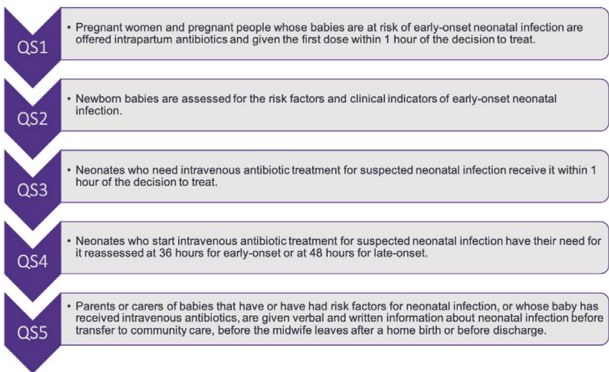
Of the 605 babies born in April and May, 56 neonates were treated because of clinical risk indicators for EONS; only those given empirical antibiotics were included in this analysis. The incidence rate of confirmed or suspected neonatal sepsis was 9.2% of babies born. Mothers received IAP for maternal risk factors, unless none were present during labour. IAP was administered to 18 mothers because of maternal risk factors, but an additional four should have received IAP but delivered too quickly, making the compliance rate 81.81% (18/22). Interventions for EONS were timely, with 89.29% (50/56) receiving antibiotics in less than 1 h, although some delays did occur because of ward acuity, prescription and documentation errors. The 36-h decision was documented for 82.14% (46/56) of neonates, but 10 neonates lacked documentation because of patient transfer, documentation errors and local Trust policy for clinical exceptions. Verbal information was provided to 92.86% (52/56) of parents, but written information was not provided to any.

Hospitals globally rely on the Kaiser Permanente Neonatal Early-Onset Sepsis Calculator, but this neonatal unit follows the NICE guideline on maternal risk factors and clinical indicators for antibiotic treatment.<sup>4</sup> All neonates with suspected EONS cases were treated promptly based on clinical suspicion, blood cultures and CRP, with empirical antibiotics preventing adverse outcomes. However, potential concerns about antibiotic resistance highlight the need to identify the incidence of resistance in EONS management in the UK.

Improving communication to parents was highlighted; written information on EONS and late-onset group B *Streptococcus* infection is vital to improve health literacy on recognising neonatal infections signs, alleviate parental anxiety and provide support to parents.<sup>3</sup> Therefore, to improve compliance, a cost-effective approach is to implement a QR code to Trust-approved patient information leaflets.

**Conclusions**

Although overall compliance with NICE QS75 was satisfactory, a marked improvement in communication with parents is needed. Implementing a QR code will be a simplified cost-effective way that doctors can provide parents with information about EONS.



**Fig 1.** The NICE UK neonatal sepsis quality standards.