linked with disease, there is a lack of data examining their association with non-SARS-CoV-2 respiratory infection.

Methods We analysed data from a prospective cohort study of adults (≥18y) hospitalised with acute lower respiratory tract disease, from 1st August 2020 to 31st July 2022. We included patients with acute respiratory infection, a negative SARS-CoV-2 test, and known blood group status. Univariate and multivariate logistic regression was used to assess ABO and RhD (RhD) influence on the likelihood of cardiovascular complications, and Cox proportional hazards for survival and hospital length of stay.

Results 3,118 adults with known blood group status were hospitalised with SARS-CoV-2 negative respiratory infection. Compared to the national donor population, blood group A and RhD-positive were over-represented in adults hospitalised with respiratory infection and in contrast blood group O were under-represented (both P<0.05).

Overall, morbidity was high: 61.1% (n=1906) patients had a cardiovascular complication, median hospitalisation was 6-days (IQR:3–12) and 30-day mortality was 14.0% (n=437). Univariate analysis revealed that, following hospitalisation, cardiovascular complications did not differ between A vs O (χ² P=0.818) or Rhesus (χ² P=0.575) blood groups: although, this population remained over-represented by group A (χ² P<0.001) and RhD-positive patients (χ² P<0.001) compared to the donor population.

Multivariate analysis found that pneumonia had the strongest effect on cardiovascular complication (OR:1.36, 95%CI 1.17–1.59, P<0.001), increased the hazard of 30-day mortality (HR:3.08, 95%CI 2.39–4.0, P<0.001), and decreased 60-day discharge (HR:0.65, 95%CI 0.60–0.71, P<0.001). Neither ABO blood group nor RhD-status influenced the risk of cardiovascular complications, ICU admission, or 30-day mortality in respiratory infection. However, group A patients were more likely to be discharged in 60 days (HR=1.10, 95% CI 1.01–1.19, P=0.029).

Conclusions We found that blood group A has a protective effect in SARS-CoV-2 negative respiratory infection, including against longer hospital admission. Further investigation by pathogen may be warranted in the future, and may allow more targeted approaches through stratifying treatment intervention benchmarks based on this varied risk.

Please refer to page A291 for declarations of interest related to this abstract.

REFERENCES
1. UKHSA Advisory Board: Chief Executive’s report – GOV.UK (www.gov.uk)
2. NHS England – Respiratory disease
3. CBP-7281.pdf (parliament.uk)

NHS Digital provided data including annual A&E attendance (April-March) 2010/11–2019/20 for all patients aged 65yrs+. Analysis was performed on attendances with either respiratory or cardiac conditions (identified by Emergency Department diagnostic codes), the resulting deposition of the attendances (admission or discharge), and trends over the 10-year period. Both cardiac and respiratory codes were chosen to capture all respiratory infections, and conditions exacerbated by infection.

A&E attendances for cardio-respiratory diagnoses rose consistently as a proportion of total attendances between 2010 and 2020 [298,540/3,101,262 (9.63%) to 681,623/4,883,419 (13.96%)]. Of these, the number leading to admission increased from 226,881 in 2010/11 to 356,575 in 2019/20, (15 to 24% of total admissions from A&E). The number discharged increased from 71,659 to 325,050. The absolute number presenting with a primary respiratory diagnosis increased faster than overall attendance.

This analysis suggests an increased percentage of A&E attendances were due to cardiorespiratory illness, cardiorespiratory admissions as a share of all emergency admissions continues to grow in spite of the >4x increase in patients discharged from A&E. The increase in 2019–20 is unlikely to be confounded by COVID-19 as data includes only 1 intrapandemic month.

Winter season RTIs and cardiac disease exacerbations and events provoked by respiratory infection (e.g., congestive heart failure and myocardial infarction) are known to be important contributors to overall cardio-respiratory diagnoses. Preventative measures including licenced and soon to be licenced vaccines for pneumococcal, covid-19, influenza and RSV as well as early treatments against viral and bacterial RTI provide a potential opportunity to reduce cardiorespiratory presentations to A&E and help reduce the burden on the healthcare system.

Background Community acquired pneumonia (CAP) remains a globally significant infection with an estimated UK annual incidence of 1% of all adults. Mortality correlates well with CURB65 scoring. Despite known recommendations from national guidelines through BTS/NICE, there remain inconsistencies in management. Critical areas for review include diagnostic testing, antibiotic use, and audit of care.

Methods Electronic records were reviewed from consecutive patients discharged from a large general hospital with an ICD-10 discharge diagnosis of CAP. Key clinical features were identified including demographics, severity and key outcomes. The study focus was on adherence of diagnostic testing and...