The authors' regional IgG4-RD service is one of the largest UK-based units treating patients with this condition. Specialist clinics and multidisciplinary team meetings operate alongside an active research programme. We aimed to describe the frequency with which thoracic abnormalities – either as a symptomatic presenting feature of IgG4-RD or an incidental asymptomatic finding on imaging – were present in a prospectively recruited patient cohort.

Method and results Patients referred to the authors' IgG4-RD service from 2005 onwards and confirmed as having a diagnosis of IgG4-RD were included. Diagnoses were made using established clinical criteria (HISORt for AIP and Japanese International Consensus Diagnostic Criteria for systemic disease); tissue specimens were assessed using the Boston histopathological consensus criteria where available. Patients were followed prospectively; clinicopathological data relating to presentation and clinical progress were stored in a secure database with the consent of participants. In patients without symptomatic thoracic manifestations of IgG4-RD, routine clinical imaging (CXR and CT) was reviewed where available for evidence of incidental asymptomatic disease.

61 IgG4-RD patients with thoracic imaging available were included; mean age at diagnosis was 60.3 years (SD 14.6). 43 (70.5%) patients were male. The majority of patients (85.2%) presented with features of intra-abdominal disease. 6 patients (9.8%) had evidence of symptomatic thoracic disease on the basis of clinical presentation, radiology and/or histology. A further 15 (24.6%) patients had abnormal imaging suggestive of asymptomatic thoracic IgG4-RD.

Conclusion A significant proportion of IgG4-RD patients have evidence of symptomatic and asymptomatic thoracic manifestations of this multi-system disease. Respiratory physicians should consider IgG4-RD in their differential diagnosis for a range of pulmonary presentations, particularly where there is co-existing extra-thoracic organ involvement. Making a diagnosis of IgG4-RD impacts on access to established therapeutic options including corticosteroids and rituximab to which the disease is responsive in the inflammatory phase.

P208 PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA WITH CHEST PHYSIOTHERAPY: A META-ANALYSIS

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Research question Among mechanically ventilated adult ICU patients, can chest physiotherapy (CPT) prevent the onset of ventilator-associated pneumonia (VAP) compared with standard care?

Introduction VAP is a common nosocomial infection with various known strategies for prevention, including CPT. Conflicting evidence regarding CPT for VAP prevention exist since CPT may cause desaturation and respiratory muscle fatigue.

Objectives To determine the efficacy of CPT, compared with standard care, in preventing the onset of VAP among mechanically ventilated adult ICU patients, its effect on ICU mortality, length of ICU stay, and duration of mechanical ventilation.

Inclusion criteria Controlled trials on adult mechanically ventilated ICU patients, given CPT for VAP prevention, compared with standard care.

Search strategy An electronic search in PubMed, EMBASE, CENTRAL, BioMedCentral, Elsevier Health, and Herdin was done. Reference lists were checked manually.

Study manoeuvres The authors arrived at a consensus and the Cochrane risk of bias tool was used for evaluation.

Statistical analysis Mantel-Haenszel method using the Review manager 5.3.

Results Twenty studies were found, and 10 were retrieved for review. Five studies were included, representing 595 patients. Evaluation of the included studies found 1 study with low risk of bias, 2 studies with high risk, and 2 studies with unclear risk. Overall combined meta-analysis of all 5 studies found no difference in VAP incidence between the 2 groups (RR 0.80, 95% CI 0.52 to 1.23, P = 0.05). A subgroup analysis done excluding the studies with high risk of bias still showed no difference in VAP incidence (RR 0.96, 95% CI 0.62 to 1.50, P = 0.86). CPT made no significant difference on ICU mortality (RR 0.97, 95% CI 0.57 to 1.97, P = 0.07), duration of ICU stay (RR 0.36, 95% CI -1.83 to 2.55, P = 0.10), and duration of mechanical ventilation (RR 0.23, 95% CI -0.74 to 1.21, P = 0.14).

Conclusions It is not recommended to perform routine CPT on mechanically ventilated adult ICU patients to prevent the onset of VAP, as this is associated with potential harm and unnecessary costs. The authors recommend that more trials with low risk of bias be conducted on CPT for VAP prevention.

P209 THE BURDEN OF HOSPITAL ACQUIRED PNEUMONIA: A COHORT STUDY

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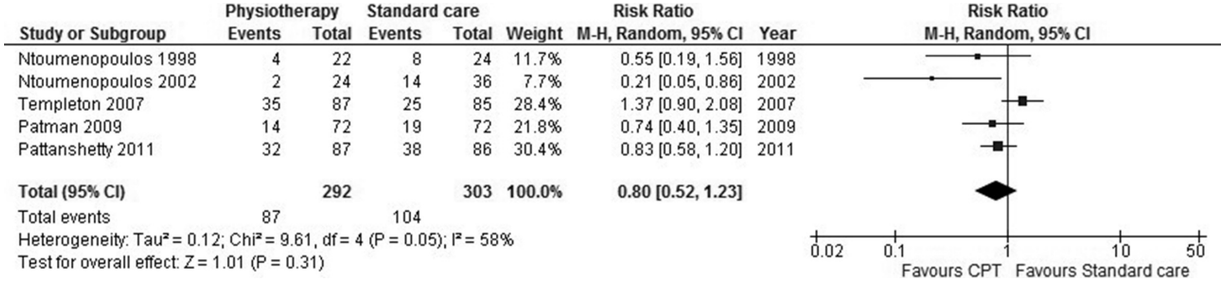

Abstract P208 Figure 1

Abstract P209 Table 1 Association between clinical and demographic features of cohort and death at 30 days

Demographic feature		Number of individuals (n = 790) (%)	Number of deaths at 30 days (n = 240) (%)	Crude OR (95% CI)	Adjusted OR (95% CI)*
Sex	Female	394 (49.9)	111 (46.2)	1.00	1.00
	Male	396 (50.1)	129 (53.8)	1.23 (0.91–1.67)	1.38 (0.96–1.99)
Age category (years)	<70	184 (23.3)	27 (11.3)	1.00	1.00
	70–79	182 (23.0)	58 (24.2)	2.72 (1.63–4.55)	2.30 (1.28–4.14)
	80–89	305 (38.6)	113 (47.1)	3.42 (2,14–5.48)	3.18 (1.86–5.43)
	≥90	119 (15.1)	42 (17.5)	3.17 (1.82–5.52)	3.23 (1.71–6.10)
Admitted from nursing home	No	734 (92.9)	218 (90.8)	1.00	1.00
	Yes	56 (7.1)	22 (9.2)	1.54 (0.88–2.68)	1.47 (0.75–2.91)
Charlson Index Score	0	186 (23.5)	29 (12.1)	1.00	1.00
	1	178 (22.5)	49 (20.4)	2.06 (1.23–3.44)	1.94 (1.09–3.44)
	2–3	248 (31.4)	79 (32.9)	2.53 (1.57–4.08)	2.15 (1.27–3.66)
	≥4	178 (22.5)	83 (34.6)	4.73 (2.89–7.74)	4.34 (2.50–7.53)
Consolidation on CXR	No	138 (17.5)	35 (14.6)	1.00	1.00
	Yes	386 (48.9)	132 (55.0)	1.53 (0.98–2.37)	1.48 (0.92–2.39)
Timing of HAP antibiotics	Admission or ≤48 h of admission	192 (24.3)	59 (24.6)	1.00	1.00
	2–4 days from admission	169 (21.4)	42 (17.5)	0.75 (0.47–1.19)	0.81 (0.48–1.39)
	≥5 days from admission	429 (54.3)	139 (57.9)	1.08 (0.75–1.56)	0.87 (0.57–1.33)
White cell count (quintiles)	≤7.9	191 (24.2)	47 (20.0)	1.00	1.00
	8.0–10.9	189 (23.9)	53 (22.1)	1.19 (0.76–1.89)	1.01 (0.59–1.67)
	11.0–14.6	190 (24.1)	61 (25.4)	1.45 (0.93–2.27)	1.20 (0.72–2.02)
	≥14.7	190 (24.1)	69 (28.8)	1.74 (1.12–2.72)	1.38 (0.83–2.31)
	Missing	30 (3.8)	-	-	-
C Reactive Protein (quintiles)	≤45	187 (23.7)	41 (17.1)	1.00	1.00
	46–87	186 (23.5)	60 (25.0)	1.70 (1.06–2.69)	1.90 (1.12–3.22)
	88–174	187 (23.7)	73 (30.4)	2.28 (1.45–3.59)	2.42 (1.42–4.12)
	≥175	185 (23.4)	55 (22.9)	1.51 (0.94–2.41)	1.56 (0.90–2.70)
	Missing	45 (5.7)	-	-	-

*Odds ratio adjusted for all variables in table.

Background Hospital acquired pneumonia (HAP) is a common nosocomial condition, especially in the elderly population. We aimed to describe clinical and demographic features of patients diagnosed with HAP (excluding ventilator associated pneumonia) in a large teaching hospital and investigate the association of these features with 30 day mortality.

Methods We used electronic medical records to identify all individuals with a physician diagnosis of HAP between 1/11/2014 and 31/4/2015. We extracted information on demographics, radiographic and laboratory findings, antibiotic prescriptions and mortality. HAP was defined as either diagnosis of pneumonia after 48 h of admission or hospital admission within the preceding 10 days. 30 day mortality was defined as death within 30 days of first being prescribed antibiotics for HAP. Logistic regression was used to generate odds ratios for death at 30 days, stratified by clinical and demographic features. White cell count and C Reactive Protein (CRP) levels were divided into quartiles.

Results There were 790 people with a diagnosis of HAP during the study period. 396 (50.1%) were male and mean age at admission was 78.0 years (standard deviation [SD] 13.1). 56 (7.1%) people were admitted from a nursing home. 706 (89.4%) patients were admitted under medical specialities. 186 (23.5%) had a Charlson Index Score of 0, and 62 (7.9%) had dementia coded as a co-morbid illness. 48.9% of patients were reported to have consolidation on chest radiograph, whilst 19.9% were reported to have clear lungs. 598 (75.7%) patients had been admitted to hospital for at least 48 h prior to starting antibiotics for HAP, with a median stay of 5 days in hospital prior to starting antibiotics for HAP (Interquartile range [IQR]: 2 to 11). 240 (30.4%) patients died within 30 days of first being prescribed antibiotics for HAP. Features strongly associated with increased mortality at 30 days were older age, higher Charlson Index Score and high CRP (see Table 1).

Conclusion Our findings suggest that HAP poses a substantial burden to secondary care services and carries a high mortality rate.

P210 COMMUNITY ACQUIRED PNEUMONIA- SEVERITY AND MORTALITY

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Background Community acquired pneumonia (CAP) is a common cause of hospital admissions and carries a high mortality rate. Risk stratification through clinical assessment, underlying chronic lung disease, SIRS and CURB65 helps identify patients at moderate to high risk of mortality. Despite prompt and appropriate management, a significant number of patients (18.3%) die in hospital (BTS Adult CAP audit 2009/10).

Aims and objectives We wished to determine our hospital's CAP mortality rate and ascertain the proportion of patients with a high likelihood of death, as predicted by high CURB-65 scores, markers of severe infection (SIRS criteria) and underlying chronic respiratory disease.