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Advances in pleural disease

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This editorial provides an update on pleural research and aims to highlight the areas that will be covered in the review series <http://ow.ly/4mQDyK>

The burden of pleural disease continues to increase internationally leading to significant healthcare costs and an urgent need for improving management. Pleural effusion is a common presentation for many pulmonary and systemic diseases, and it is estimated that each year 1.5 million people develop a pleural effusion in the USA and 200 000–250 000 in the UK [1, 2]. Despite the prevalence of pleural disease, advances in research in the field have not been equal to other fields in respiratory medicine, including much rarer conditions. By way of example, talc pleurodesis (proposed in 1935) remains the standard therapy for symptomatic malignant pleural effusion in many centres [3]; very few diseases in medicine are currently managed in the same way as they were 80 years ago.

The development of pleural medicine as a subspecialty is now justified, on the basis of the increasing choice of pleural procedures that are available to the physician and the growing number of patients presenting with pleural disease [4]. It can be argued that a specialist pleural unit is now required for optimal provision of the service, as it has been shown that specialist care significantly reduces complications [5]. This also provides the best environment for providing dedicated teaching to specialty trainees and junior staff. Although a specialist pleural centre ensures effective management for patients, standardisation of practice between centres is difficult based on the lack of high-quality research that will guide clinical practice.

In the latest series in the *European Respiratory Review*, leading pleural specialists have provided reviews on the latest advances in pleural medicine. PSALLIDAS *et al.* [6] provide a state-of-the-art review of malignant pleural effusion from bench-to bedside focusing on the pathogenesis, novel treatments and future directions. BHATNAGAR *et al.* [7] summarise the important literature relating to a number of advanced pleural interventions, including medical thoracoscopy, indwelling pleural catheters and pleural manometry. In forthcoming issues of the *European Respiratory Review*, benign pleural effusion, malignant pleural mesothelioma and radiological investigation of pleural disease will be covered, providing state-of-the-art advances in each area.

Research in pleural disease is now growing and large scale trials have been performed and are underway which will help answer many clinical questions. There are currently ongoing large randomised, multicentre studies aimed at: improving treatment in malignant pleural effusion and pneumothorax; understanding the pathogenesis and microbiology of pleural infection; and biomarker discovery. In parallel with clinical research, basic biological research is expected to provide much needed data on pathogenesis and mechanism, thereby suggesting novel treatments in the field. In the era of personalised medicine, translational research is anticipated to advance pleural disease through the combination of state-of-the-art laboratory research with multicentre clinical research. It is expected that the results will be applicable to everyday clinical practice.

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References

- 1 Porcel JM, Light RW. Pleural effusions. *Dis Mon* 2013; 59: 29–57.
- 2 Bhatnagar R, Maskell N. The modern diagnosis and management of pleural effusions. *BMJ* 2015; 351: h4520.
- 3 Bethune N. Pleural poudrage: new technique for deliberate production of pleural adhesions as preliminary to lobectomy. *J Thorac Surg* 1935; 4: 251–261.
- 4 Hooper CE, Lee YC, Maskell NA. Setting up a specialist pleural disease service. *Respirology* 2010; 15: 1028–1036.
- 5 Havelock T, Teoh R, Laws D, *et al.* Pleural procedures and thoracic ultrasound: British Thoracic Society Pleural Disease Guideline 2010. *Thorax* 2010; 65: Suppl 2, ii61–ii76.
- 6 Psallidas I, Kalomenidis I, Porcel JM, *et al.* Malignant pleural effusion: from bench to bedside. *Eur Respir Rev* 2016; 25: 189–198.
- 7 Bhatnagar R, Corcoran JP, Maldonado F, *et al.* Advanced medical interventions in pleural disease. *Eur Respir Rev* 2016; 25: 199–213.