EDITORIAL

What do the words ‘asthma control’ and ‘exacerbation’ really mean?

One hundred asthma specialists asked to define ‘asthma control’ and ‘exacerbation’ are likely to come up with 100 different answers. Some will quote definitions used in international or national guidelines. Others will have strongly held opinions of their own. In many fields such variation of view is healthy, but the terms ‘asthma control’ and ‘exacerbation’ are so frequently used, both to indicate the need for therapeutic change and as end points in clinical trials, that we need agreement as to what these terms imply. The interesting article in this issue of the Primary Care Respiratory Journal by Liz Juniper and colleagues [1], emphasises this point; it shows the need for specific defined outcomes and illustrates the problems associated with clinicians’ estimates of change. Both terms, ‘asthma control’ and ‘exacerbation’, need defining, but these primary terms also need an adjective to qualify them and the commonest would be a grading of ‘severity’. If these terms are to be used as an indicator for the need for change in therapy, it also needs to be clearly stipulated whether their use is pre or post therapy. If assessment of severity involves a measurement, it is vital that there is standardization of the method of measurement and validation.

‘Asthma control’ is defined in some guidelines and usually includes quantification of day and night symptoms, as well as some measurement of lung function. In the UK, use of the ‘Royal College of Physicians (RCP) Three Questions [2]’ is gaining increased awareness. The questions certainly obviate the problem of patients reporting that they are ‘fine’ and the doctor then not

asking further specific questions and therefore underestimating persisting morbidity. Whether the RCP 3 questions provide a satisfactory spread of scores can be debated, as can interpretation of the score. Does an RCP score of 3 in somebody with persisting daily symptoms because of airway remodelling really mean the same as a score of 3 in somebody who is usually free of symptoms but has had a bad month? What else might be included in a composite score of asthma control in addition to the use of symptoms and peak flow? Many might argue that health status is an important parameter. We also need to determine which other measurements should be utilised including newer possibilities such as exhaled NO or sputum eosinophilia. All such combination measures then need to be tested in the heterogeneous asthma community.

Most observers use the term ‘exacerbation’ to imply a worsening of asthma which is relatively acute (usually a few days and certainly less than one week) and this word represents a contrast with ‘control’ which is usually a longer-term description of either asthma symptomatology or adequacy of treatment (usually reflecting a time period of more than one week). By the very nature of its shorter timescale, exacerbations are usually defined by using a combination of subjective day- and night- time symptoms and objective parameters such as peak flow, use of treatment, or spirometry, but others have used the term to include need for unscheduled healthcare. The latter is a particularly difficult interpretation because it is so clearly influenced by differences in healthcare systems and geography.

"Severity" can obviously be applied to an "exacerbation" or to "control" by use of such terms as mild, moderate or severe—for example, "severe" loss of control or "mild" exacerbation—but each grade of severity then needs to be comprehensively defined.

Recognising the lack of uniformity with regards to the use of the words "asthma control" and "exacerbation" has led to the setting up of a joint European Respiratory Society/American Thoracic Society Taskforce led by Robin Taylor from New Zealand and Helen Reddel from Australia. The aim is to provide consensus recommendations on standard definitions and on data collection methods for assessing asthma control, asthma severity and exacerbations in future clinical trials. It is essential to realise that whilst the outcomes from this Taskforce are initially designed for use in clinical trials, the aim is also to provide recommendations about tools for the assessment of asthma control and exacerbations in clinical practice. Such tools must be usable. All too often guidelines include statements such as those regarding variability of peak flow, without defining which method of calculating variability should be used (there are three or four different ways), and I have yet to find an asthma specialist who calculates variability in day to day clinical practice despite the prominence of this recommendation in many guidelines. We also have to remain cognisant of the fact that the terms we use in discussion with one another will be

used in discussion with patients; if the same applies to asthma as it does to COPD, it can be confidently reported that patients rarely understand the word "exacerbation". Papers such as that by Liz Juniper et al. are vital to servicing this discussion and Drs Taylor and Reddel are to be congratulated on their initiative in setting up the ERS/ATS Taskforce. We must hope that when their deliberations are complete we have useful practical terms for use both in clinical trials and in day to day clinical practice.

References

- [1] Juniper EF, Chauhan A, Neville E, et al. Clinicians tend to overestimate improvements in asthma control: An unexpected observation. *Primary Care Resp J* 2004;13(4):181–4.
- [2] Measuring Clinical Outcome in Asthma: A patient focused approach. Pearson MG, Bucknall CE, editors. 7-1-1999. Royal College of Physicians, Clinical Effectiveness & Evaluation Unit.

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