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**Title:**

**Is there scope to discontinue non-essential medication in patients with advanced lung cancer?**

**Abstract:** (Please refer to instructions to authors and example abstract)

**Focal Points**

1. Patients with advanced lung cancer take many ‘non-essential’ medicines
2. A simple audit tool could be used to identify ‘non-essential’ medicines that could be discontinued
3. Pharmacists have a potential role in identifying and reviewing ‘non-essential’ medicines

**Background**

Lung cancer patients can present with complex medical histories often taking medications to manage existing conditions and prevent future morbidity e.g. antihypertensives and antiplatelets. Guidelines for discontinuing these medications in life-limiting illnesses, such as advanced lung cancer, have not been produced despite the potential to reduce burden, in terms of cost and, more importantly, discomfort to the patient.<sup>1</sup> The objectives of this work was to audit the number of medications in patients taking erlotinib for the treatment of advanced lung cancer; and, develop a draft tool that can be used to identify non-essential medications which could, potentially, be discontinued.

**Methods**

This clinical audit was undertaken at an acute NHS Trust in April 2011. A clinical audit tool was used to extract data from medical notes of patients receiving erlotinib for non-small cell lung cancer (NSCLC) and compared to a set of criteria to establish if the medicine is essential, non-essential or uncertain. These criteria were based on a study that defined unnecessary medication as where there is no anticipated short-term benefit to patients with respect to survival, quality of life or symptom control.<sup>2</sup> All patients who had received erlotinib in the Trust for the treatment of NSCLC within 18 months were selected for the audit. A consensus group (consultant pharmacist, lung nurse specialist and consultant oncologist) reviewed results and considered which medications they would have stopped.

**Results**

Of the 20 patients audited, 19 were taking at least one medication that could have been discontinued. The mean number of medications taken was 8 (range 1–16). Seventeen patients were taking essential medications (e.g. analgesics) necessary for symptom control in cancer. Non-essential medicines were regarded as those which provided no short term benefit to the patients with respect to survival, quality of life or symptom control or any medicine which had potential to cause harm. The focus group concurred that the majority of non-essential medications identified by the criteria could have been discontinued. Medications classified as uncertain were taken by 7 patients. These medications need to be further reviewed.

**Discussion**

For patients undergoing treatment for terminal lung cancer the issue of discontinuing medications is not an immediate priority. However, at some point in their treatment pathway a discussion regarding their medications should be instigated. The focus group revealed that timing of this discussion is crucial. The futile use of medication in terminally ill cancer patients has been reported in the literature and this work is in agreement with this by showing that patients with NSCLC taking erlotinib are taking unnecessary medications.<sup>2</sup> Patients take medications such as statins and antihypertensives with the belief that they will be taking them for the rest of their lives, therefore if an appropriate explanation for discontinuation is not given the patients and/or their families may misconceive this as a death-hastening intervention. This work also showed that a significant number of patients who are taking erlotinib also take a proton pump inhibitor (PPI) despite the fact there is a clinically significant drug interaction between erlotinib and PPIs where the absorption of erlotinib is reduced.<sup>3</sup> In conclusion, patients taking erlotinib for the treatment of advanced NSCLC take many unnecessary medications and written guidelines on what can be withdrawn are needed. There is the potential for pharmacists to become involved in the review of patients with terminal cancer to facilitate discontinuing potentially unnecessary medicines.

**References**

- 1 Nicholson A, Andrew I, Etherington R. et al. Futile and inappropriate prescribing: an assessment of the issue in a series of patients admitted to a specialist palliative care unit. *International Journal of Pharmacy Practice* 2001;9:R72
- 2 Riechelmann RP, Krzyzanowska MK, Zimmermann C. Futile medication use in terminally ill cancer patients. *Support Care Cancer*. 2009;17(6):745-8.
- 3 Erlotinib (Tarceva) Summary of Product Characteristics Electronic Medicines Compendium (eMC). <http://www.medicines.org.uk/emc/medicine/16781/SPC/Tarceva%2025mg.%20100mg%20and%20150mg%20Film-Coated%20Tablets> (Last accessed 31.5.2012)