Temporary replacements for oral epilepsy treatment regimes

One of the many potential challenges that may confront people with any chronic condition requiring regular medication is how to manage such medication during times of illness, especially if medication cannot be taken as usual. With epilepsy, there are additional complications that make such times particularly complicated: seizures may become more frequent during concurrent illness, other medications may interfere with antiepileptic drugs or may themselves cause seizures and seizures may directly impair recovery, for example, after some surgical procedures.

The article by Banks et al. seeks to address one key issue in this setting – what to do with regular antiepileptic drugs for people who either cannot take their usual medication in tablet form, or those in whom absorption is compromised for any reason. The scenario is not uncommon – with over 16 million admissions to hospital for some reason in 2015/2016 (http://www.nhsconfed.org/resources/key-statistics-on-the-nhs, accessed 21.11.2016), many hospital admissions each year can be expected to occur in people with epilepsy for reasons other than their epilepsy, and a significant proportion are likely to require some adaptation to their home medication regime. However, as the authors point out, there is a lack of evidence upon which to base any strategy.

These circumstances may occur by design, or unexpectedly. When there is time to plan, due consideration can be given to the particular changes that are likely to be needed. Specialist inpatient dental treatment is one example of such a situation. Proper advance consultation between the patient's neurologist and the clinicians, including the anaesthetists if appropriate, involved in the admission can prevent undue distress. All concerned should be aware of the patient's regular medication, potential interactions with other planned medications, including anaesthetic agents. It may be possible to undertake a procedure as a day case, and schedule the procedure to avoid the need to omit any medication. Rescue medication should be available in case seizures occur and require prompt control.

In other situations, advance planning will not be possible. The suggestions provided by Banks et al. may then prove useful. The authors propose a series of options that might enable seizure control not to be disrupted. They rightly point out that perhaps the most useful action is to contact the patient's usual neurologist – who will hopefully have a good knowledge of that patient's epilepsy and its particular vagaries, of drugs that have been tried before and are prescribed currently, and of other individual circumstances to note. This will be especially important when the epilepsy has proven resistant to drug treatment, or when the patient may have a rare condition with which one cannot expect specialists in other fields to be familiar. Moreover, liaison between the patient's regular neurologist and the admitting team, which may be based in another hospital, is especially important as a buffer between differing practices in different hospitals: for example, some formulations of some antiepileptic drugs may not be immediately available in every hospital. In the end, the guidelines from Banks et al. can only offer options, and individual strategies will be needed for each patient, making close liaison between the treating clinicians essential.

Banks et al. offer suggestions for alternative formulations for a patient's regular antiepileptic tablets or capsules. Local hospital formularies do vary, and actual stocks may not be available in a given hospital pharmacy. National variations also need to be borne in mind – for example, in the UK, carbamazepine suppositories are licensed, with dose and duration stipulations. Dose conversions

between different formulations must be carefully considered and the advice of the hospital pharmacy should always be considered: the most up-to-date information should always be consulted. Particular care should be taken to avoid dosing errors, including dose miscalculations, in complex settings with unfamiliar drugs and uncommonly used formulations, especially for phenytoin. Banks et al. point out some potential pitfalls. One point to note is that recommendations in the UK are for the intravenous replacement dose of valproate to be the same as the established oral dose (BNF, accessed 21.11.2016).

Rapid changes in an antiepileptic drug regime, in the context of an acute illness that may alter brain excitability and serum albumin levels, with co-prescription of other medications, may mandate measurement of serum drug levels, including those of the antiepileptic drugs. Taken in the context of the clinical picture, levels may help in determining the cause of unexpected clinical developments, such as altered conscious level or confusion and may guide dose adjustments. As Banks et al. point out, free levels may be to be requested.

After the need for alternatives has passed, the patient will in most cases need to be returned to oral medication. Returning to the pre-existing regime may be the simplest option and will generally be possible, especially after shorter periods of altered treatment. Much longer periods may require one or more of the adaptations to be continued in addition to a regular home regime (which may itself be changed or unchanged). It is important in all cases to ensure that both GP and the regular treating neurologist are aware not only of the admission, but also of any changes made to treatment for the patient's epilepsy.

The article by Banks et al. brings to attention another difficult area in the management of epilepsy, and yet another area lacking good evidence. Considering the complexity and importance of the problem, the Epilepsy Advisory Group of the UK ABN will be issuing guidelines that may be useful to clinicians in this UK setting. Prospective collection of more information across the UK may further inform such advice, and might form part of an interesting and important clinical audit.