

## What are nurse sensitive patient outcomes in ambulatory chemotherapy?

Since the Next Stage Review, the development of quality measures has continued apace. While the new government is abandoning process based targets, their emphasis on outcomes raises further challenges for specialist nursing services to demonstrate their contribution. This Policy+ outlines the findings and implications of a review undertaken by the National Nursing Research Unit investigating nurse sensitive patient outcomes in ambulatory chemotherapy<sup>1</sup>.

### Measuring the quality of nursing care

The Cancer Reform Strategy identified the need for action in relation to securing better and faster treatments for cancer. Chemotherapy services have been identified as an area where there appears to be a considerable variation in quality<sup>2</sup>. A recent report 'Chemotherapy Services in England: ensuring safety and quality'<sup>3</sup> aimed to bring about a 'step change in the quality and safety of chemotherapy services' and proposed actions that need to be taken by commissioners and providers to ensure high quality care. It identified that information on outcomes was not routinely collected in a systematic way across the country and the need to progress work on metrics that can be used to monitor safety and quality. What evidence is available on whether interruptions to nurses' work contribute to medication errors?

In common with other areas, there is interest in determining the nursing contribution to quality care in chemotherapy services. This is frequently a nurse led care and treatment management environment where the quality of nursing care may potentially have a significant impact on patient outcomes across the range of domains of effectiveness, safety and experience identified in the Next Stage Review. Assessment of the quality and impact of care provided by nurses in this context is a high priority.

The Next Stage Review signaled the development of national measures of the quality of nursing care<sup>4</sup>. National work has progressed with a number of proposed nurse sensitive outcome indicators linked to 'high impact actions' being piloted<sup>5</sup>. Nurse sensitive outcome indicators are measures which are sensitive to variation in the quality of nursing care and either:

- directly indicate patient outcome
- or
- measure a nursing care process which will result in a desired outcome.

While the items on the draft national list (falls, pressure ulcers and urinary tract infections) are useful in a wide range of inpatient and community settings they are not likely to yield useful indicators for more specialised, or outpatient settings. Building on our previous work which focused on acute inpatient care, the National Nursing Research Unit undertook a series of scoping reviews in consultation with clinical experts to identify and assess evidence for indicators in ambulatory chemotherapy.

### Evidence on quality indicators for ambulatory chemotherapy

Whereas plausible sets of well developed outcome indicators for nursing quality already exist for acute settings we found none suited to this setting. Combining findings derived from literature, including evidence based guidelines, with expert consultations, we developed a shortlist of ten outcome domains

### *Box 1 Shortlist of outcome domains*

Diarrhoea  
Education & Communication  
Experience  
Fatigue  
Nausea & Vomiting  
Nutrition  
Oral Mucositis  
Pain  
Safe medication administration  
Septicaemia  
Wellbeing & Function

that were widely cited and thought to be important to both nurses and patients in ambulatory chemotherapy settings (Box 1).

Of these, we identified three areas; patient experience, control of nausea & vomiting and safe medication administration; as the highest priority for development because they were best supported by evidence of sensitivity to nursing.

However, similar to the findings of our previous review we found that the evidence supporting a link to specific nursing factors (e.g. Nurse Experience, specialist training or staff numbers) or interventions was weak and most of the evidence rested upon the availability of treatments or other interventions that nurses could use which were known to be effective.

So, for example, some of the outcomes would only be nurse sensitive if nurses were able to prescribe effective medications or make referral to other specialists.

### **Conclusions and Implications**

The lack of quality evidence supporting relationships between nursing inputs and outcomes in ambulatory chemotherapy highlights the need for caution in using indicators as direct measures of quality but also the urgency for collection of data so that relationships to quality can be established. In seeking quality indicators for nursing teams in ambulatory chemotherapy the aim is to identify measures that relate to important outcomes that are not just sensitive to the contribution of nurses but which also fulfill a range of other criteria to ensure that they can engage and motivate the nursing team.

These include the avoidance of duplication of effort, the ability to use data collected in practice, and rapid feedback and action based on the results. It will also be important to involve patients in identifying the most important elements of quality, including experience, on which to focus. With the development of indicator sets also comes the need for standardisation of data recording methods and content. This presents a challenge as there is already considerable, often paper based data collection, for example patient self assessment questionnaires. As recording and electronic record keeping in healthcare develops, it will be vital to make links to ensure data is not duplicated needlessly. It is feasible to develop a set of indicators for nurse sensitive outcomes in ambulatory chemotherapy.

Further development work and piloting of such a system is now underway, supported by the National Cancer Action Team.

### *Key issues for policy*

- Decisions regarding the role and training of nurses in ambulatory chemotherapy, as in other specialty settings, can usefully be guided by examining the relationship to nurse sensitive outcome indicators
- The current lack of evidence for impacts of specialist qualifications should not be interpreted as demonstrating that there is no added value – rather that current measures of quality are inadequate to show any value added
- The proposed indicators under development have clear importance and hold the promise of providing robust evidence to monitor quality and guide the development of nursing services

### **References and information**

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