Helen Ballantyne BSc(Hons) PG Dip RN RVN

After graduating with a degree in pharmacology in 2002, Helen qualified as an RVN in 2005. Combining her passions for veterinary nursing and travel, she began a six-year stint as a locum nurse, working nationally and internationally in a variety of settings.

In September 2013 she qualified as a human-centred nurse and works at Papworth Hospital NHS Foundation Trust, which is the largest specialist cardiothoracic hospital in the UK. After two years working in intensive care, she has recently moved to the transplant continuing-care team where she helps to care for patients post-transplant. She is also part of the organ retrieval team, which is on call to attend hospitals across the UK to facilitate the collection of organs from deceased donors. Helen is really enjoying her change in career, although she retains a keen interest in veterinary nursing and, when she sets off for work, her family and friends take delight in asking 'Is it humans or animals today?'

Beyond the nursing care plan: an introduction to care bundles

Helen Ballantyne BSc(Hons) PG Dip RN RVN
Papworth Hospital NHS Foundation Trust, Papworth Everard, Cambridgeshire CB23 3RE, UK

ABSTRACT: Care bundles are widely used in human-centred nursing, either alongside or as an alternative to nursing care plans. They are key tools in providing high quality, standardised care, which is based on comprehensive and robust evidence. They may also have additional benefits related to team working, education, audit and clinical governance.

While the benefits of care bundles in human-centred nursing are widely documented, this does not necessarily mean that they will be useful or applicable to veterinary nursing. This article aims to provide a review of care bundles so that veterinary nurses can begin to think critically, and establish whether or not the use of care bundles may improve clinical practice for their patients.

Veterinary nursing is in a period of great change. Registered Veterinary Nurses (RVNs) are getting used to working to the Royal College of Veterinary Surgeons Code of Professional Conduct for Nurses (RCVS, 2012), which outlines clear guidelines on how to behave both professionally and personally. The Code of Professional Conduct formalises the RVN's commitment to providing appropriate and adequate care for their patients as well as issues such as clinical governance, team communication and record keeping, among other key principles of practice.

As the profession moves forward, so it looks to its professional parallel, human-centred nursing, to borrow ideas and concepts that may help to ensure working practice fulfils the requirements of the Professional Code of Conduct, so contributing to increased quality of care for patients across the UK.

One key example of a shared tool for nursing is the use of nursing care plans. In clinical practice, a nursing care plan is the written record of care planned and implemented for a particular patient (Barrett, Wilson & Woollands, 2012). Used appropriately it will help veterinary nurses deliver focused care, document that care and prioritise information sharing. Irrespective of the level of experience of the nurse involved, patient care can be approached in a uniform and systematic way, encouraging consideration of the needs of the patient rather than focusing on the disease process.

Nursing care plans can be valuable educational tools, informing new nurses how to approach a case. They can be tools to measure the care provided for an animal, contributing to clinical governance. In veterinary practice, care plans can also have the additional benefit of facilitating accurate billing for services, protecting the interests of the both the client and the business.

However, nothing is perfect, and as a profession we owe it to our patients and our clients not to accept care plans blindly, assuming that they will benefit our practice. They must be used appropriately and training is required. One key disadvantage, as outlined by LaDuke (2008) in her damning editorial, 'Death to nursing care plans', is the constant need to update such a plan, particularly when care is more complex and time a limited resource. Another criticism of nursing care plans is the repetition that they generate when the

DOI: 10.1080/17415349.2015.1127787

© 2016 British Veterinary Nursing Association (BVNA)

same instructions must be written out for several different patients all suffering from similar conditions.

Consider an operation list dominated by neutering; there will be aspects of each patient's care that are as unique as is the patient, from the terrier that chews certain types of bedding and so must not be boarded on such material, to the spaniel that needs a hypoallergenic diet. However, elements of their care plan will be identical; they may require instructions for the same drugs, similar appropriate pain scoring and wound care.

Just as we borrowed nursing care plans from our human nurse colleagues, so we owe it to the veterinary nursing profession to establish if there are any further tools that would be of use to us. We have already adapted clinical tools for measuring neurological status, nutrition and pain and we must ensure we keep looking for more.

What are care bundles?

Care bundles are defined by Norman (2010) as a group of evidence-based best practices related to a disease or set of symptoms, that, when executed together, result in better outcomes than when implemented individually. Jain, Miller, Belt, King and Berwick (2006) go on to explain that the care bundle provides a framework backed by clinical evidence for improving the effectiveness and safety of patient care.

The origins of the care bundle in medical practice can be traced back to 2002 when the Institute for Healthcare Improvement (IHI) developed an evidence-based list of interventions that were linked to reductions in ventilator-associated pneumonia in ventilated patients in ICU. These have subsequently been updated and include positioning of the head, regular assessment for extubation, oral care and daily sedation breaks (IHI 2012). As a result clear benefits have been seen; hundreds of hospitals employing ventilator care bundles have now experienced several years without any cases of ventilator-acquired pneumonia (Clarkson, 2013).

Other care bundles that are widely used and may be more relevant to veterinary practice include central venous catheter care, peripheral intravenous cannula care, urinary catheter care, prevention of surgical site infection and treatment of sepsis.

Sepsis is a known or suspected infection plus systemic manifestation of infection (Dellinger, 2015) and is associated with high mortality rates in human patients across the UK. In 2004, a set of severe sepsis bundles was published by the Institute for Healthcare Improvement based on the practice guidelines published by the Surviving Sepsis Campaign in 2004. These have subsequently been updated (IHI 2012).

A commonly used adaptation of the bundle guidelines used across the UK, is the Sepsis Six (Royal Free London Hospital, 2015). This is a list of six key interventions that can be performed once a patient begins suffering key symptoms indicating that they may be septic. The interventions include: administration of high-flow oxygen (to maintain target oxygen saturations), administration of intravenous fluids obtaining blood cultures, measurement of lactate, administration of IV antibiotics and measurement of fluid output.

Each of these interventions is important either in treating infection or monitoring the impact of the treatment of infection. From a nursing point of view, several of these interventions can be implemented autonomously while escalating concerns to the medical team. So, a fluid chart can be started to monitor urine output, an existing IV line can be flushed and prepared, or a new one placed, blood samples can be taken, equipment can be prepared.

In 2010, a detailed analysis of the results of the Surviving Sepsis Campaign and associated care bundles indicated a reduction in mortality from 37% to 30.8% over a two-year period (Levy, Dellinger, Townsend, Linde-Zwirble, Marshall, Bion, …Schorr, 2010). In 2012, The Institute of Healthcare Improvement published a White Paper entitled 'Using Care Bundles to Improve Healthcare Quality'. The authors, (Griffin, Haraden, and Nolan), describe care bundles as a groundbreaking strategy to improve patient care outcomes through use of best practices and innovation. While improving patient outcomes is naturally the primary goal in introducing new practice, there have also been several secondary advantages documented as a result of the implementation of care bundles. Care bundles may close the gap between theory and practice, they may facilitate clinical audit, support education and encourage team working.

Closing the gap between theory and practice

In 2011, the Institute of Medicine reported the need to bridge the gap between research and practice (Chassin, 2012). This is not a new phenomenon as, in 2004, Levy, Provonost, Dellinger, Townsend, Resar, Clemmer, and Ramsay noted that the transfer of research from the bench to the bedside is a long, tortuous process, one that is not driven by anything very clear and seemed to be based more on coincidence than on an evidence-based evaluation of the literature. This may result in the use of clinical interventions that are not based on evidence, which may not reflect up-to-date high quality patient care.

The same calls for evidence-based practice now echo throughout the veterinary academic institutions in the UK as well as clinical practices on the High Street. Such calls coincide with the development of veterinary nursing as a profession and the formal recognition by veterinary nurses that we must not rely totally on following directions from the veterinary surgeon, but that we must understand what we are doing and why we are doing it when we care for our patients.

It has been suggested that the use of care bundles, which reflect strong science, usually involving at least one systematic review of multiple, well-designed, randomised controlled trials, may be a way to bring evidence to clinical nursing practice.

Education

Studies exploring the use of care bundles with student human-centred nurses in the UK indicated that they could also be valuable teaching aids. Goodstone (2015) found that 'care bundles can increase student's perceived knowledge and confidence in the clinical setting.' From this it was concluded that such increased knowledge and confidence should translate to safer practice. Additionally, using a care bundle as an education tool may help to standardise teaching. As interventions do not vary between cases, a holistic approach to the nursing process is encouraged.

© 2016 British Veterinary Nursing Association (BVNA)

Team working and communication

A further benefit of the use of care bundles, as highlighted by Clarkson (2013) is the fact that the care bundle uses the concept of shared responsibility within the team for completing the required elements of the bundle. The tool is used by all members of staff who, if familiar with it, can begin to implement it as soon as necessary. In the veterinary profession, this may result in a nursing assistant preparing equipment while an RVN places an IV line while the vet begins diagnostics and a receptionist is able to reassure the owners while the team are working on their pet.

Each member of the team knows what they need to do and can help each other achieve it. Working in this way, can improve job satisfaction, with increased understanding and autonomy of working. The caveat to this conclusion is a word of warning from Levy et al. (2010) who warn that 'the development and publication of guidelines often does not lead to changes in clinical practice'. The most obvious barrier would be lack of knowledge and understanding. RVNs are in an ideal position to help disseminate information. By definition, care bundles are small, discrete packages of information and RVNs can tailor training to different team members to ensure they understand both their role, and the overall aim of the care bundle

Governance and audit

The National Institute for Health and Care Excellence (NICE, 2002) definition of clinical audit is that it is 'a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and implementation of change'. The final benefit of using care bundles is the ease with which they can be audited, thus contributing to clinical governance and ensuring that the patients are receiving the best possible care.

When considering this in relation to the veterinary nursing profession, RVNs are in an ideal position to begin to ask about clinical auditing. Are all the necessary steps of a care plan or bundle being carried out? If not, why not? Results of such a survey can be the beginnings of fundamental research projects. For example, with an intervention such as urinary catheter placement; is the practice team consistently having problems with urine scalding in patients? If this can be proven, then appropriate measures can be put in place, such as the use of barrier creams, appropriate absorbent bedding, or a move to a closed urinary catheter collection set. In this way, RVNs are setting standards of care for the future and protecting their patients.

After considering the benefits of these tools, as a profession, we need to ask if they are in fact applicable to veterinary medicine. Clarkson (2013) tells us that one of the hallmarks of a 'care bundle' is that, when appropriately implemented; it is essentially portable between healthcare systems such as those in Europe, North America or Australasia. But we don't know if they will necessarily be portable between human medical and veterinary practice.

The key objection to care bundles, reported anecdotally, is their uniform nature. Not all patients require the same treatment and therefore a care bundle, like all treatments, it would require careful critical thinking to ensure that RVNs understand the treatment they are giving as well as the implications of the care. When we are being encouraged to nurse holistically, do care bundles that unify care interventions have a place? Therapeutically, not all animals will require the same medication, despite having the same disease process. Additionally, in veterinary medicine, which is essentially private healthcare, not all owners will be able to afford all the interventions indicated by the bundle; therefore implementing them arbitrarily could cause problems for both the client and the practice.

Following on from this point, Clarkson (2013) provides a further insight: she explains that the key factor identified in failing care bundles is the evolution of the bundle to a simplistic checklist of actions with too little attention paid to the impact of each individual intervention. Keeping the care bundle evidence-based and short reduces the possibility that superfluous interventions may be implemented. Additionally, the Surviving Sepsis Campaign, which took steps to identify why sepsis was not being treated appropriately, describes that the two most important ways to eliminate errors in care are to 'reduce the number of steps involved in any process, and adopt standardised routines'. So, as with all opportunities to use new tools, the needs of the patient must be identified in conjunction with the needs of the nursing team and practice profile. Fulbrook and Mooney (2003) provide a straightforward step-by-step guide to writing a care bundle (**Box 1**).

Box 1. Writing a care bundle

1. Identify a care theme
2. Identify a cluster of interventions/practices within that theme
3. Undertake literature searches related to each of the interventions/practices to identify relevant research
4. Extract the research literature
5. Categorise the available research according to quality
6. Delete any interventions/practices from your list that do not have an adequate evidence base to refer to
7. On the basis of analysed research evidence, develop evidence-based interventions/practices

This is a guide that can be applied to any clinical theme around which there is a cluster of generally recognised practices. If we apply these steps to the use of peripheral cannulation, using principles taken from human-centred practice, we can agree that steps such as aseptic technique, skin preparation of the cannula site and choice of dressing can influence the safety and patency of peripheral lines. However, the next step would be to consider veterinary application. So relevant questions might include: should the use of a protective collar be uniformly included and should dressings always be in a particular colour to avoid animals mistakenly going home with IV lines in situ?

In veterinary practice, the issue that may arise is that evidence is not easy to access, or, indeed, when it comes to veterinary nursing practice, there may not yet be data available. In this case the development of a care bundle may stimulate research and encourage critical thinking, and patient-centred care rather than application of a standard approach. RVNs are in an excellent place to start these debates. Not all of them will generate a care bundle, new care plan or research project, but as a profession it is important that we begin to feel empowered to ask about evidence.

© 2016 British Veterinary Nursing Association (BVNA)

Professor Bruce Keogh, National Medical Director of NHS England (2015) said 'the essence of professionalism is being able to describe what you do and define how well you do it'. It is through consideration of care plans, care bundles and evidence for the care we provide, that the process of achieving both these steps begins for the veterinary nursing profession.

References

Barrett, D., Wilson, B., and Woollands, A. (2012). Care Planning: A Guide for Nurses (2nd ed.) London: Taylor and Francis

Chassin, M. (2012). Taking aim at the right targets. [Online]. Retrieved from http://nam.edu/wp-content/uploads/2015/06/VSRT-TakingAim.pdf.

Clarkson, D. (2013). The role of 'care bundles' in healthcare. *British Journal of Healthcare Management, 19,* 63–68.

Dellinger, P. (2015). The Surviving Sepsis Campaign: Where have we been and where are we going? *Cleveland Journal of Medicine, 82*(4), 237–244.

Fulbrook, P. and Mooney, S. (2003). Care bundles in critical care: a practical approach to evidence based practice. *British Association of Critical Care Nurses, Nursing in Critical Care, 8,* 249–255.

Goodstone, L. (2015). Bundle Up: Introducing care bundles to increase knowledge and confidence of senior nursing students. *Teaching and Learning in Nursing, 10,* 143–148.

Institute of Healthcare Improvement (2012). How-to Guide: Prevent Ventilator-Associated Pneumonia. Retrieved from http://www.ihi.org/resources/pages/tools/howtoguidepreventvap.aspx.

Institute of Healthcare Improvement (2012). Severe Sepsis Bundle. Retrieved from http://www.ihi.org/resources/Pages/Tools/SevereSepsisBundles.aspx

Jain, M., Miller, L., Belt, D., King, D. and Berwick, D. M. (2006). Decline in ICU adverse events, nosocomial infections and cost through a quality improvement initiative focusing on teamwork and culture change. *Quality Safe Health Care, 15*(4), 235–239.

Keogh, B. (2015). NHS England Opinion. Retrieved from http://www.england.nhs.uk/oped-bruce-keogh/

LaDuke, S. (2008). Death to nursing care plans! *American Journal of Nursing, 108*(13).

Levy, M. M., Dellinger, R. P., Townsend, S., Linde-Zwirble, W., Marshall, J., Bion, J. … Schorr, C. (2010). The Surviving Sepsis Campaign: results of an international guideline-based performance improvement programme targeting severe sepsis. *Intensive Care Medicine., 36*(2), 222–231.

Levy, M. M., Provonost, P. J., Dellinger, R. P., Townsend, S., Resar, R., Clemmer, T. and Ramsay, G. (2004). Sepsis change bundles: Converting guidelines into meaningful change in behaviour and clinical outcome. *Critical Care Medicine, 32,* 595–597.

National Institute for Health and Care Excellence (2002). *Principles for Best Practice in Clinical Audit.* Oxford: Radcliffe Medical Press.

Norman, B. (2010). An Ounce of Prevention: Best Practice Bundles. *Retrieved from Medico-surgical Matters.* 2010;19:8–9.

W, R., Griffin, F. A., Haraden, C. and Nolan, T. W. (2012). Using Care Bundles to Improve Health Care Quality. IHI Innovation Series White Paper. Retrieved from http://www.ihi.org/resources/pages/ihiwhitepapers/usingcarebundles.aspx.

Royal College of Veterinary Surgeons (2012). Code of Professional Conduct for Veterinary Nurses. Retrieved from http://www.rcvs.org.uk/advice-and-guidance/code-of-professional-conduct-for-veterinary-nurses/pdf/.

Royal Free London Hospital (2015). Sepsis six pathway launch. Retrieved from https://www.royalfree.nhs.uk/news-media/news/sepsis-six-pathway-launch/.

CPD EVENTS 2016

PREVENTATIVE PIT STOP
Problem Behaviour

- **Wednesday 15 June | Holiday Inn, Bolton**
- **Wednesday 9 November | Holiday Inn, Gatwick**

Expert Speakers
Anne McBride
Nicky Trevorrow

These days will cover a mixture of lectures, interactive tasks and workshops introducing you to some theory and application of knowledge to help you to help young animals and their owners prevent problem behaviours.

What will you learn?

- What we teach animals, what they learn and how it can go right or wrong
- Indicators of animal emotions and what to do about it
- The VNs crucial role in preventative measures

BECOME A MEMBER AND SAVE!

BVNA Members can take advantage of the special price of £150. Why not sign up at the same time as booking!

£150 per day*

For more information please visit www.bvna.org.uk/cpd/intro

BVNA Members £150 Non-Members £210†

†It's cheaper to join and you also get membership for a year too!

* BVNA Members price

Terms and conditions apply; www.bvna.org.uk/downloads/sop-terms-and-conditions-for-cpd-bookings.pdf

Book online now by visiting www.bvna.org.uk

© 2016 British Veterinary Nursing Association (BVNA)