RCN IV Standards (4th edition) Update and Implementation

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Introduction

- IV Resource Team Lead, Royal Wolverhampton NHS Trust
- Provision of long line insertion, OPAT and Device Related Hospital Acquired Bacteraemia reduction (DRHABs)
- Previous career Critical Care and Patient Safety
- Member of the RCN IV Standards (2016) project board
- Disclosure - RWT – education referral centre for Vygon UK

Presentation Aims and Format

Aims – to introduce the Standards, identify important changes, and describe approaches and challenges to their organisational introduction

Format – to follow the Standards through on their journey from conception to front line implementation

RCN Standards for infusion therapy – what are they?

- Evidence based guidelines regarding wide variety of infusion therapy (intravenous / osseous /subcutaneous/epidural) practice from device insertion to removal
- For all healthcare professionals (HCPs) - not only nurses
- Up to date (launched Dec 2016)
- **Evidence based** / expert consensus
- Keen to state that HCPs must continue to add to evidence base

Why are they so important?

- “HCPs have a responsibility to deliver safe and effective care based on current evidence, best practice, and where applicable validated research” (RCN standards point 2.8 - NMC)
- Represents clinical support provided by the RCN to front line nurses
- Protective and supportive at various levels
- NB: - In the public domain

The Journey – from inception to implementation

- Stage 1 - creation of clinician project board and literature search teams, aims identified
- Stage 2 – data sifting and initial document collation
- Stage 3 – document construction/ writing
- Stage 4 – document publication and launch
- Stage 5 – organisational awareness and procedure / practice amendment
- Stage 6 – implementation into bedside clinical practice
- Stage 7 - reassurance/ evidence of implementation

Stage 1 – Identification of aims and evidence collation

Project board formed – representatives from a wide range of related disciplines

Identified

- the need to update the document
- objectives
- the need for increased community based and patient experience/perception focus
- methodology to be applied – rapid evidence assessment
- randomised control trials, other quantitative research and evidence relating to patient experience
- 12 specific areas of practice

Stage 1 - 12 areas focussed on

- Add on devices
- Arterial catheters
- Blood sampling
- Central venous access devices
- Flow control devices
- Infusion related bloodstream infection
- Infusion therapy phlebitis
- Intraosseous access devices
- Midline catheters
- Parenteral nutrition
- Peripheral access devices and flushing
- Subcutaneous infusions

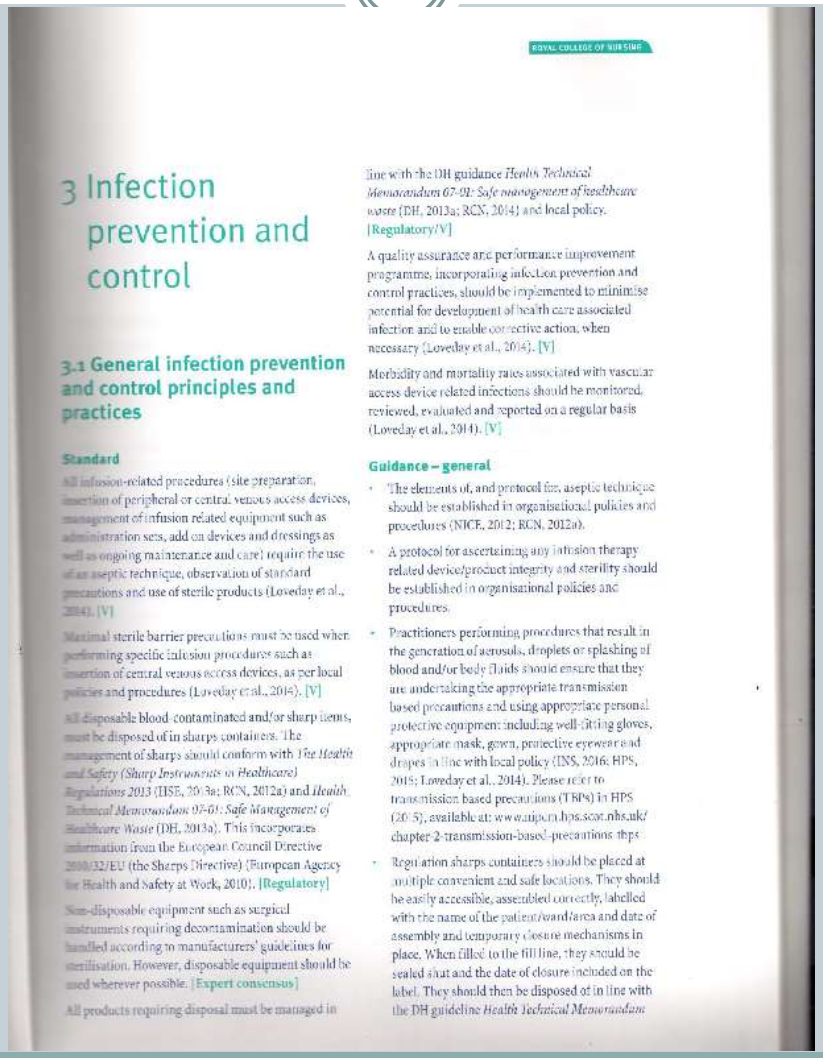
Stage 2 – data searches and sifting

- RCN library, RCN contractor (Bazian)
- 3 databases utilised (British Nursing Index, CINAHL, MEDLINE)
- 2010 onwards
- English language
- RCTs, systematic reviews, meta-analyses and cohort studies
- 3 sifts of data performed to identify most robust (1,824 papers reduced to 48, plus 22 relating to patient experience)
- Results presented to project board
- Expert concensus established for areas with limited evidence

Stage 3 - Document construction/ writing

- Findings formatted into usable document
- Structured so that each individual practice/ procedure is divided into a standard accompanied by evidence based detailed guidance as to how this can be achieved

Example of document structure



3 Infection prevention and control

3.1 General infection prevention and control principles and practices

Standard

All infusion-related procedures (site preparation, insertion of peripheral or central venous access devices, management of infusion related equipment such as administration sets, add on devices and dressings as well as ongoing maintenance and care) require the use of an aseptic technique, observation of standard precautions and use of sterile products (Loveday et al., 2014). [V]

Maximal sterile barrier precautions must be used when performing specific infusion procedures such as insertion of central venous access devices, as per local policies and procedures (Loveday et al., 2014). [V]

All disposable blood-contaminated and/or sharp items, must be disposed of in sharps containers. The management of sharps should conform with *The Health and Safety (Sharp Instruments in Healthcare) Regulations 2013* (HSE, 2013a; RCN, 2012a) and *Health Technical Memorandum 07-01: Safe Management of Healthcare Waste* (DH, 2013a). This incorporates information from the European Council Directive 2010/32/EU (the Sharps Directive) (European Agency for Health and Safety at Work, 2010). [Regulatory]

Non-disposable equipment such as surgical instruments requiring decontamination should be handled according to manufacturers' guidelines for sterilisation. However, disposable equipment should be used wherever possible. [Expert consensus]

All products requiring disposal must be managed in line with the DH guidance *Health Technical Memorandum 07-01: Safe management of healthcare waste* (DH, 2013a; RCN, 2014) and local policy. [Regulatory/V]

A quality assurance and performance improvement programme, incorporating infection prevention and control practices, should be implemented to minimise potential for development of health care associated infection and to enable corrective action, when necessary (Loveday et al., 2014). [V]

Morbidity and mortality rates associated with vascular access device related infections should be monitored, reviewed, evaluated and reported on a regular basis (Loveday et al., 2014). [V]

Guidance – general

- The elements of, and protocol for, aseptic technique should be established in organisational policies and procedures (NICE, 2012; RCN, 2012a).
- A protocol for ascertaining any infusion therapy related device/product integrity and sterility should be established in organisational policies and procedures.
- Practitioners performing procedures that result in the generation of aerosols, droplets or splashing of blood and/or body fluids should ensure that they are undertaking the appropriate transmission based precautions and using appropriate personal protective equipment including well-fitting gloves, appropriate mask, gown, protective eyewear and drapes in line with local policy (INS, 2016; HPS, 2015; Loveday et al., 2014). Please refer to transmission based precautions (TBPs) in HPS (2015), available at: www.nipcm.hps.scot.nhs.uk/chapter-2-transmission-based-precautions-tbps
- Regulation sharps containers should be placed at multiple convenient and safe locations. They should be easily accessible, assembled correctly, labelled with the name of the patient/ward/area and date of assembly and temporary closure mechanisms in place. When filled to the fill line, they should be sealed shut and the date of closure included on the label. They should then be disposed of in line with the DH guideline *Health Technical Memorandum*

Main changes - 1

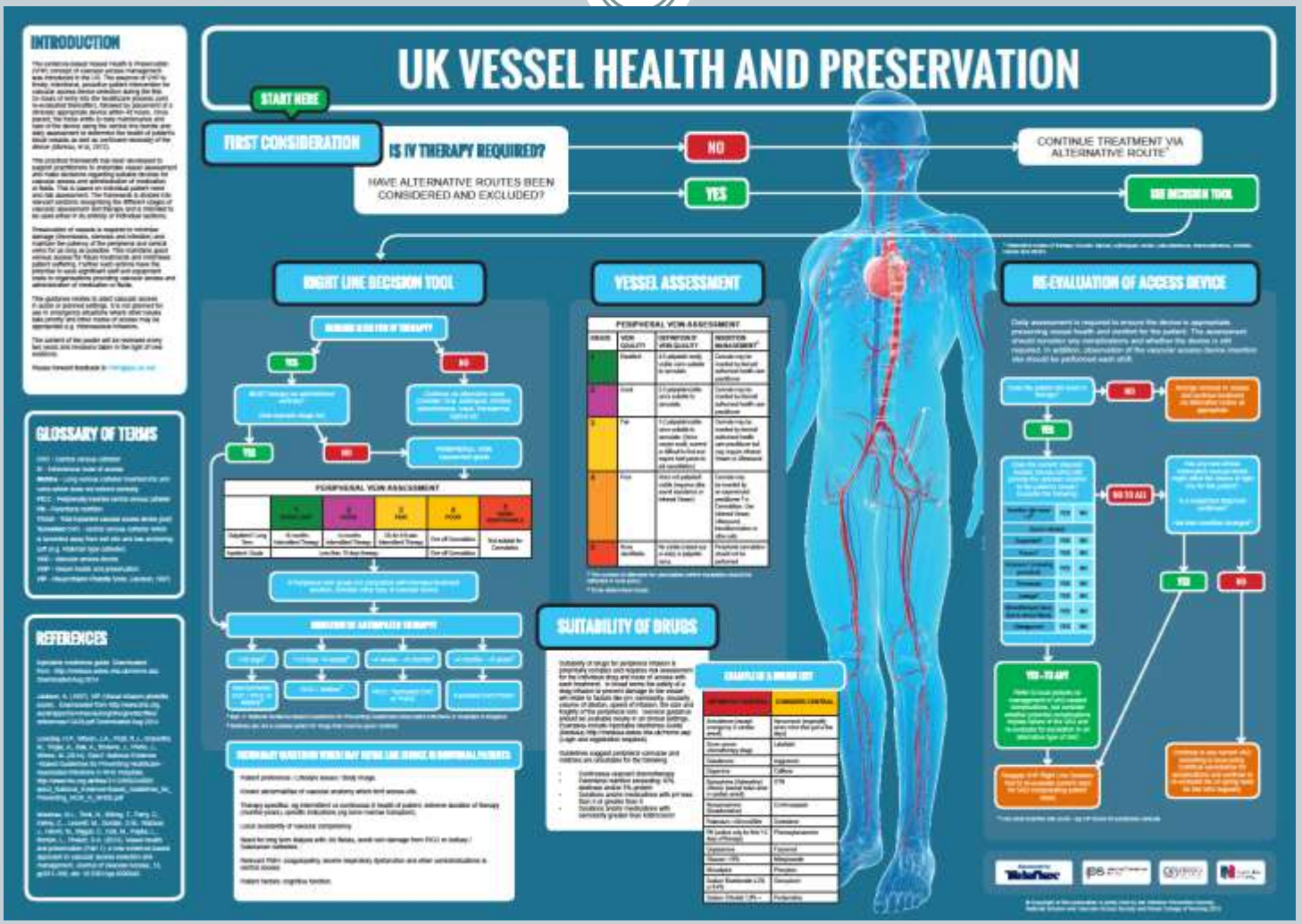
Recognises that healthcare provision as a whole and IV therapy rapidly changing therefore incorporates these including

- How to safely delegate to non registered clinical staff
- Revalidation issues
- Dedicated sections on patient safety, the patient experience and increased focus on community iv therapy (chemotherapy/ PN administration/OPAT service provision)

Main changes -2

- VHP pathway – 48 hour review of access need
- Administration set changing to 96 hours
- Protective caps
- CHG impregnated dressings
- Daily CHG washes for ICCU patients
- Prescription of saline flushes
- Sutureless fixation devices (NICE)
- Peripheral recannulation on clinical indication alone
- Medical adhesive related skin injury (MARSI)
- PN – dedicated team/use of dedicated single lumen catheter

NIVAS / IPS Vessel Health and Preservation Tool



Main changes - 3

Service development section -

- Organisations should consider the implementation of an iv team
- Example business cases for the creation of IV and OPAT teams included

Exclusion

- Some areas of practice – eg apheresis

Stage 4 – Document publication and launch

- Document published in paper and electronically
- Launch event December 2016 at RCN headquarters
- Launch events/workshops
- Referred to via other professional groups (eg - BAPEN)

Local clinical staff awareness

- 30 staff questioned
- Ranging from ICCU consultant to student nurse
- 24 had never heard of them
- 4 had some awareness
- 2 had good awareness
- All thought they were very relevant to their practice
- Various IT communication aids suggested (computer home screens/ intranet/ all user emails/ illustrated books)
- Consensus – should be included in policies/ practices
- Mandatory training updates

Stage 5 - THE BIG HURDLE

– Organisational awareness and procedure /practice amendment

Stage 5 – Organisational awareness and procedure /practice amendment

- RCN aim - implementation in to local policies and practices
- Not exhaustive
- Awareness of other local and national guidelines

Stage 5 – Organisational awareness and procedure /practice amendment

- Consideration of implementation into clinical practices
- Need dedicated groups of specialist clinicians at organisational level –eg iv forums
- Delegate practice amendments to relevant trust leads (eg transfusion practice)
- Ensure timely practice update
- Need regular meetings - multiple national guidance

Stage 6 – **THE BIGGEST HURDLE!**

Bedside implementation

Risk that this can remain “dead”

Stage 6 – implementation into bedside clinical practice

- As leaders, how do we support our staff and ensure implementation?
- As leaders, how do we protect patients and ensure compliance?

Stage 6 – implementation into bedside clinical practice

- Previous local grounded theory research project with ten Band 7 ward managers
- "Are ward managers confident that their staff can access long intravenous lines competently?"

"its taking ownership of your ward area and actually feeling really proud of it and wanting the best for ….your staff and ultimately your patients" (WM 1)

"I like to know my, you need to know…your staff and the only way to do that is to work with people, work alongside people" (WM 8)

Stage 6 – implementation into bedside clinical practice

- Problem staff groups – new staff, experienced nursing staff, out of hours nurses, frequently transferring staff, medical staff.
- Re new staff – “she came from the chemo unit at …..and her ANTT was appalling. Didn’t clean the tops of bottles, put the needle straight through the silver thing” (WM 4)
- Re out of hours nurses - “They are longstanding staff, so whether they develop poor habits I am not there around to see” (WM 1)
- Re medical staff – “I don’t have anything to do with their training……I picked one up drawing the flush up over the bin” (WM 1)

Stage 6 – implementation into bedside clinical practice

- WARD BASED PRACTICAL COMPETENCY ASSESSMENT
- Training of key groups – ward managers, link nurses, out of hours practitioners
- Face to face IV sessions via link nurses (Band 6)

  - Advantages over electronic training – "I mean they're sat on the computer…in the end what you get is staff going around with A,B,C,D,E," on a piece of paper (WM 7)

  - Disadvantages – "every day there is something one or more of us has to go off the ward for" (WM 9)

- Detailed checklist competency documents
- Certificates for Trainers and Trainees
- Use of support videos/ dvds/ photostories
- Aim – annual standard mandatory training, currently 3 yearly
- Aim - for all clinicians - "I think it would be much easier if we were at a level across the (Trust)" (WM 5)

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Implementing Nursing Practices/Competencies

Nursing Practice

3.0 Detailed Action

3.1 Verify patient identity, and identify any allergies

3.2 Check the patients' personalised management plan to confirm the procedure is due

3.3 Explain the procedure to the patient and gain consent to proceed

3.4 Assist the patient into a comfortable position. Maintaining privacy and dignity

3.5 Remove any restrictive garments the patient may have so that the line hangs freely

3.6 Apply apron

3.7 Decontaminate hands with soap and water and dry thoroughly

3.8 Decontaminate the trolley or ANTT tray with decontamination wipe and allow to seconds. Within the Community setting prepare a clean surface

3.9 Gather equipment required

3.10 Check the expiry date of the 0.9% normal saline solution in line with Royal Wolve NHS Trust policy for Prescribing, Storing and Administration of drugs

NB: Within the community check the 0.9% normal saline chloride solution agains

3.11 Decontaminate hands with alcohol hand gel

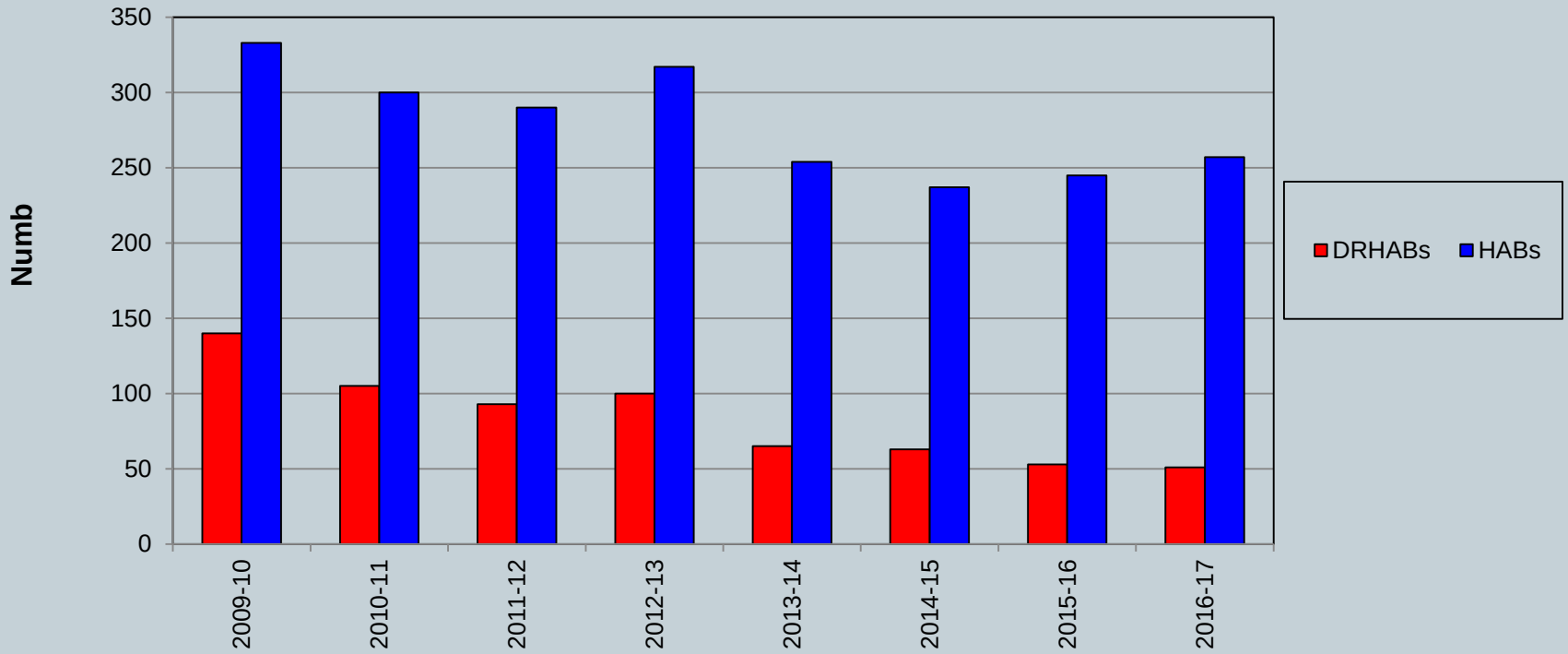
Competency document

	Procedure stage	Nurse sig/date	Assess sig/date	Nurse sig/date
1	Explains procedure to patient and gains consent			
2	Checks patient's management plan/care plan to identify any allergies			
3	Assists the patient into a comfortable position			
4	Assists the patient to remove any restrictive clothing, to ensure line is exposed			

Stage 7 – Reassurance / evidence of implementation

- Observe practice
- Challenge poor practice
- Audit practice and feed back to ward staff and managers
- Patient feedback “Friends and Family Test”
- Key performance indicators (eg DRHABs/ staff sickness/ retention and recruitment)

Our Evidence - 1



Our Evidence -2

	2009-10		2014-15		2016-17	
Blood Cultures taken	10943		15,640		15,303	
Blood Culture positives	1113		1,019		1,058	
Blood Culture significant	824		796		830	
Blood Culture contaminants	299		223		228	
Hospital Acquired Bacteraemia (HABs)	333		245		257	
Device-Related HABs:	140		53		53	
Lines		91		32		22
Urinary Catheters		15		18		22
VAP		14		0		1
?VAP/?Line		7		0		0
Nephrostomy		4		3		3
Pacemaker		4		0		1
PEG		1		0		0
Other		4		0		2

In conclusion

- High quality, comprehensive document
- Empowers and supports HCPs
- Need for appropriate implementation into organisational policies/ procedures
- Many challenges to be faced regarding clinician awareness and volume of clinical guidance /educational update
- Increased future focus on clinical research/ evidence collection/ publication
- Increased/ improved patient awareness and feedback

Thank you

Any questions?