



Adoption support resource – insights from the NHS

Health technology adoption programme

Published: 5 June 2017

[nice.org.uk](https://www.nice.org.uk)

1 Introduction

This resource has been developed to provide practical information and advice on NICE medical technologies guidance on [SecurAcath for securing percutaneous catheters](#).

NICE's adoption team worked with contributors who use SecurAcath in NHS organisations to gather their learning and experiences.

The information presented in this resource is intended for the sole purpose of supporting the NHS in adopting, evaluating the impact of adopting, or further researching this technology. It is complementary to the guidance and was not considered by the medical technologies advisory committee when developing its recommendations. Contributors to this resource have provided real-world insights to the adoption of this technology in line with the recommendations for peripherally inserted central catheters (PICCs), and have also shared experiences of trialling it with other percutaneous catheters such as non-tunnelled central venous catheters and midline catheters.

SecurAcath is a single-use device to secure percutaneous catheters in position. See the [guidance](#) for more detail. It is designed to remain in situ while the catheter is in place, including during routine dressing changes, and does not usually need replacing unless catheter complications arise. At the time of writing, SecurAcath is available in 6 sizes (3 French to 8 French). The manufacturer has advised that larger sizes are planned.

The benefits of using SecurAcath for securing percutaneous catheters as reported by the NHS staff involved in producing this resource include:

- reducing catheter dislodgement and migration rates
- reducing other catheter complications such as:
 - deep vein thromboses, because better securement prevents 'pistoning' of the catheter
 - site infection, because SecurAcath allows for 360° cleaning of the site
- releasing clinician and possible clinic time by reducing the need to replace migrated venous catheters
- reducing equipment costs associated with replacing migrated and dislodged venous catheters
- reducing patient anxiety associated with risk of catheter dislodgement
- improving patient experience by minimising skin damage, particularly during dressing changes
- reducing staff anxiety associated with risk of venous catheter dislodgement during dressing changes.

Contributors to this resource advised that to minimise risk, staff should be appropriately trained before implementation (see [training](#)) and the following considerations should be taken into account when introducing SecurAcath into clinical practice:

- It should not be used for anyone with a nickel allergy.
- Pain may be experienced on insertion and removal of the device and local anaesthetic may be needed, particularly until staff are fully familiar with the technique.
- Infection rates may be increased if the device and catheter are not maintained and dressed according to protocol.
- If a surgical 'nick' in the skin is used to aid insertion, the risk of bleeding needs to be managed with a haemostatic patch and dressing.
- Initial adverse events may occur, such as skin indentation and anchor migration, until staff become familiar with the correct insertion technique.

2 Current practice

Current options for catheter securement include adhesive devices (such as StatLock and Grip-Lok), steri-strips, tape and sutures (stitches).

Guidelines produced by the British Committee for Standards in Haematology on the [insertion and management of central venous access devices in adults](#) recommend using securing devices such as StatLock in preference to stitches, and discourage the stitching of catheters to the skin. Many NHS organisations have local policies on the type of securement method to be used locally.

The NICE guideline on [healthcare-associated infection: prevention and control in primary and community care](#) includes recommendations on vascular access device care which include changing soiled dressings every 24 hours, and all dressings at least every 7 days.

3 Summary of NICE recommendations

Both the NICE guidance on SecurAcath and this adoption support resource specifically relate to using SecurAcath for securing peripherally inserted central catheters (PICCs).

- Evidence supports the case for adopting SecurAcath to secure PICCs with an anticipated medium- to long-term dwell time.
- Cost modelling shows that the SecurAcath leads to cost savings if the PICC remains in place for 15 days or longer.

4 Tips for adopting SecurAcath

The contributors to this resource considered the following to be important:

- Ensure staff are appropriately trained before implementation, gaining experiential learning both from the company and experienced users (see [training](#)).
- Have a key person within the organisation to cascade learning and act as a central point of contact for enquiries.
- Develop protocols and local guidance to ensure clear processes are in place (see [developing local documentation](#)).
- Before implementation, collect baseline data on catheter complication rates such as dislocation, migration, replacements, site infection rates and incidences of deep vein

thromboses while the peripherally inserted central catheter (PICC) is in place and site infection rates (see [business case](#)).

- Clarify which patient groups it will be used for. This will aid the cost-effectiveness assessment and may contribute to the case for change within a business case (see [selecting patient groups](#)).
- Identify how the service will be measured on quality and safety, risks and adverse events, patient experience, productivity and improved clinical outcomes (see [measuring success](#)).

5 Real world implementation examples

NHS contributors to this resource have worked with NICE to develop practical suggestions on how to implement the NICE guidance on SecurAcath. All 4 organisations use SecurAcath for peripherally inserted central catheters (PICCs). Table 1 gives a summary of the contributing sites' demographics.

Table 1 Contributor demographics

Site	Local project lead designation	Adopted for PICCs	Annual PICC placement	Comments
Aintree University Hospital NHS Foundation Trust	Intravenous access specialist nurse	2014	600	Trialling on all midlines since 2016. Annually place 400 midlines. PICC dislodgement rates reduced from 6 (pre-implementation) to 0.9 per 1,000 catheter days (post-implementation)
East Kent Hospitals University NHS Foundation Trust	Intravenous nurse practitioner and consultant anaesthetist	2014	2,000	Routinely used on non-tunnelled CVCs since 2015

The Royal Marsden Hospital NHS Trust	Intravenous therapy nurse consultant	2010	1,300	PICC dislodgement rates reduced from 5.4% (pre-implementation) to 4.8% (2012) and further to 1.5% (2016)
Velindre Cancer Centre	Intravenous access nurse specialist	2010	450 to 500	Use a locally developed algorithm to predict patients pain on removal and guide clinical management
Abbreviations: CVC, central venous catheter; PICC, peripherally inserted central catheter.				

Aintree University Hospital NHS Foundation Trust

Aintree University Hospital NHS Foundation Trust is a large teaching hospital serving North Liverpool, South Sefton and Kirkby.

The current IV team was established in August 2014 and consists of 2 band 7 IV access specialist nurses and 1 clinical support assistant. The IV service was commissioned to insert medium- and long-term IV devices, to enable delivery of various therapies and reduce all IV-related infections and complications.

Before commissioning of the IV team in August 2013, interventional radiologists led on venous catheter insertion in the trust and PICCs were secured with an adhesive device (Grip-Lok). There were reports of high rates of exit site infections and migration (6 cases per 1,000 catheter days), and nurses had been worried about changing PICC dressings for fear of venous catheter migration.

One of the IV clinical nurse specialists who joined the team in 2014 had previous experience of SecurAcath, and had already seen reduced venous catheter migration and improved patient experience as a result of its use in another trust. A pilot phase was planned to include any patient needing a PICC for 1 week or more. The company provided training on placing, maintaining and removing SecurAcath devices. This included hands-on training and supervision when placing the first 10 devices, and virtual support while the team continued the pilot period for the placement of 20 more devices.

The results of the trial indicate a reduction in the migration rate from 6.0 to 0.9 cases per 1,000 catheter days. The team have found that using SecurAcath has not increased the appointment time needed for insertion. They have trailed various dilators and identified one (the Arrow Teleflex MST kit) that enables them to insert the catheter and SecurAcath without the need to 'nick' the skin.

Initial challenges were that it was hard to clean the grooves of the SecurAcath device if the insertion site leaked. They used to place gauze underneath and over the insertion site and change the dressing at 24 hours. The team now applies skin adhesive on the PICC insertion site, which helps to form a tight seal and has stopped the need for the 24 hour dressing change. From a sterility perspective the dressing can now be left for 7 days. Because dressing changes can take up to 30 minutes, the team has saved 2 to 3 hours a day by not needing to change the dressing at 24 hours.

SecurAcath is now used for all PICCs placed in the trust. A [PICC booklet](#) has been developed, which is given to every patient with a PICC line to share with their carers and other healthcare staff. This includes full details of the insertion and dressing changes, and advice to patients. There is also a graphic and instructions on SecurAcath removal.

The team have been piloting the use of SecurAcath for midlines since December 2016. Because of winter pressures on the service, they have decided to adopt a blanket approach to SecurAcath for all venous catheters to avoid the risk of migration and the need to replace the venous catheter. The rationale for this is that it is more cost effective to spend an additional £19 for a SecurAcath device than to bring the patient back to clinic in the event the venous catheter needs to be replaced.

The team will review the year-end report with complications, infections, migrations and replacement rates to compare with the previous 2 years to decide if they will continue with this approach.

Lessons learned

- Be specific when asking patients about nickel allergy: ask if they have any metal allergies or any problems with jewellery.
- Try different dilators to identify which will help position SecurAcath the best.
- Identify how long the venous catheter is intended to be in place, to calculate if it will be cost effective.

East Kent University NHS Foundation Trust

East Kent is one of the largest hospital trusts in England, with 5 hospitals and community clinics serving a local population of around 759,000 people. The PICC line service is provided across 3 hospital sites in the trust by a team of 5 IV nurse practitioners. The team place over 2,000 PICCs every year, most of which are for chemotherapy. After-care and dressing changes are done by district nurses working in community clinics.

Before the introduction of SecurAcath in 2014, most PICCs were secured with an adhesive stabilisation device (StatLock) which needed to be replaced at every dressing change. The team were aware of a high number of reported incidences of accidental dislodgement and venous catheter migration, particularly during dressing changes in the community. Venous catheter migrations of up to 12 cm had been reported in 80% of patients, with half of these needing PICC removal and replacement with an additional visit to hospital and a repeat procedure.

The team estimated the cost of putting in a new PICC to be £150 to £200 for materials alone, plus 45 minutes of nurse clinic time for the procedure. Inpatient PICC placement service is part of a block contract and outpatient chemotherapy catheters are a standalone episode of care paid for by the CCGs via Healthcare Resource Group.

The team became aware of SecurAcath in 2013, when a patient from a different hospital presented for review with the device in place. Following feedback from the patient, the team recognised SecurAcath's potential to solve the problems with PICC migration they were experiencing and decided to undertake a trial evaluation period.

The lead IV nurse practitioner approached the trust's procurement department with a proposal to trial the SecurAcath device on 50 patients and evaluate the results. This approval was needed because StatLock costs between £4 and £5, while SecurAcath costs approximately £19.

The lead IV nurse practitioner then selected 50 consecutively presenting patients over 1 month. The main selection criteria were patients: having chemotherapy, needing a long-term PICC, who may pull out venous catheters, or with excess skin moisture.

Following the trial the team evaluated the results and found that use of SecurAcath provided significant cost savings compared with their previous practice. The costs of a typical number of PICC replacements in 1 month was the equivalent of the cost of SecurAcath for 1 year. Because the cost of PICC replacement outweighed the cost of SecurAcath, the hospital procurement team agreed to the plans to adopt SecurAcath.

Since 2014, there have been only 2 incidences of catheter migration (1 by a non-compliant patient, and 1 accidentally pulled out by a patient's partner).

The lead IV nurse specialist now offers cascade training on the device and dressing changes to hospital based staff. Hospital and community staff are invited to watch the device being removed and only staff who can confidently remove the device are allowed to do so.

On one of the critical care units within the trust (consisting of 11 beds), the critical care team considered and trialled various options for securing venous catheters. Following the successful implementation of SecurAcath for PICCs, the critical care team decided to try the device with standard central venous catheters in order to provide safe and effective vascular access and to reduce exit site infections. They have now been using it in routine practice since 2015. Because of the weight of the catheter, which can often be 4 lumens, the team also use Grip-Lok for added stability. Figures from the past 12 months at East Kent show that the critical care services have ordered 490 SecurAcath devices.

Lessons learned

- Ensure staff are appropriately trained, gaining experiential learning both from the company and other organisations using the device.
- Persevere with the learning curve; using SecurAcath can be daunting and extra time may be needed to ensure correct placement.
- Have a key person within the organisation to cascade learning and act as a central point of contact for enquiries.

The Royal Marsden NHS Foundation Trust

The Royal Marsden NHS Foundation Trust is a specialist hospital dedicated to cancer diagnosis, treatment, research and education. There are 2 hospital sites (Chelsea, London, and Sutton, Surrey) and a medical day-care unit at Kingston Hospital. The Royal Marsden also provides community services in the London borough of Sutton and the trust is currently establishing a mobile day unit. The catchment area spans from Oxford to the south coast.

The trust has 18 nurses who place over 1,300 PICCs every year. Most of these are placed in an outpatient setting, for people who need chemotherapy delivered at home. Some patients need a PICC for antibiotics or total parenteral nutrition after surgery, or because of poor peripheral access.

For over 10 years the team used StatLock, which needed to be replaced every 2 weeks or so at dressing change. Problems included dislodgements, particularly during dressing changes, skin irritation, venous catheter malpositions and recurrent replacements.

Because of these problems, the team had been researching alternative methods to secure PICCs. They first became aware of SecurAcath in 2009 when the lead IV access nurse saw it in use at an early design phase in another country, and was keen to try it out once it was available in the UK.

In 2011, the nurse consultant for IV therapy established a project team which included other clinicians to develop an evaluation protocol for the use of SecurAcath across the trust. They spoke to the company and to clinicians overseas who had already adopted the device to gain as much advice and information as they could before implementation.

The project team looked at the malposition and dislodgement rates experienced within the service and calculated the time and resources needed for PICC replacements (room, staff, equipment, X-ray or fluoroscopy if needed).

The evaluation protocol was taken to the trust's 'clinical product review committee' with a rationale for conducting an evaluation. Two members of staff were then trained in inserting SecurAcath and an evaluation was done of 30 consecutive patients. The team gathered feedback from staff and patients on how they felt about insertion and removal, and evaluated the risks and long-term savings which could be achieved with fewer PICC replacements.

The pilot evaluation was considered to be a success and the team then rolled out the use of SecurAcath across the service. The team estimated that their average PICC placement time was 3 months; this equates to replacing StatLock 6 times, whereas SecurAcath can remain in position for the duration. At the time this resulted in a net saving of £7.22 per patient for a successful PICC placement (that is, not needing replacement).

All placements are now done by the nurses trained to place PICCs. Nurses on the day unit have been trained in device removal by a member of the team; they are then observed until they reach competency and can confidently remove the device while unsupervised.

In the first year of implementation (2012), 561 PICCs were placed with SecurAcath; of these, 27 (4.8%) needed replacing because of dislodgement. By 2016, 98% of all PICCs placed were secured with SecurAcath. Of the 1,030 PICCs placed using the device in 2016, the dislodgement rate had reduced to 1.5% (15 replacements, mainly inpatients).

The team have developed an insertion and removal chart that records whether there have been any difficulties. These are scanned and sent to the lead IV access nurse to maintain a central record.

Lessons learned

- Use an increased catheter length, because an extra few centimetres are needed to accommodate the SecurAcath. If there is insufficient length this may result in the catheter 'kinking'.
- Do a 'surgical nick' to the skin below the cannula before the introducer is placed, otherwise the introducer needs to be 'corkscrewed' into position. This nick also allows the arms of the SecurAcath to be positioned.
- Using an insertion and removal chart and recording complications centrally can help monitor post-implementation impact.

Velindre Cancer Centre

The Velindre Cancer Centre in Cardiff provides specialist cancer treatment services to over 1.5 million people across south east Wales and beyond. The IV access nurse specialist team places between 450 and 500 PICCs each year. Most of these (98%) are for chemotherapy treatment in outpatients. The average dwell time is 3 months.

In 2012, nurses at the hospital placed 460 PICCs. The PICCs were managed over an approximate 50-mile radius in a variety of locations including the community, cottage hospitals, district general hospitals, teaching hospitals and hospices. Venous catheters were secured using wound closure strips and an adhesive securement device with a semi-permeable dressing to cover both. Previously, nursing staff had noted many episodes of catheter migration, from a few centimetres (needing no intervention) to significant movement needing catheter replacement. During 2012, 21 PICCs were replaced as a direct result of migration, costing around £5,250.

A member of the IV nurse specialist team had seen SecurAcath presented at a National Infusion and Vascular Access Society conference. At the time it was being used in the US for 5 French catheters, and could not be sourced in the UK for the 4 French catheter size the hospital used. The team contacted the company, and having sourced the correct size they proposed a trial period during which PICCs were placed with SecurAcath in 31 people.

- All SecurAcath devices were placed successfully: 70% with ease, 19% with slight difficulty and 11% with difficulty because of it being a tight fit to place SecurAcath to the side of the PICC.
- No patients reported any pain during placement as local anaesthetic was used as routine practice.

- All PICCs were measured routinely during dwell time and on removal. Only 1 catheter moved by 1 cm.
- Twenty eight patients (83%) were very satisfied with the device and reported no pain; 3 patients complained of pain and the devices were removed.
- There were removal difficulties in 25% of cases, including: problems folding the lower portion of the device together to allow the pins to meet; removing the anchor from the skin because of resistance; and pain experienced by patients.

The team was surprised to see the incidence of PICC-related infection initially rise from 1% to 12% (4 out of 31 people). This caused great concern and when reviewed, some nurses reported not doing routine cleansing because of their unfamiliarity with the device. About 8 months after the first SecurAcath was placed, following staff training, a repeat assessment of the infection rates of 100 PICCs placed with a SecurAcath was done. Only 2 of these developed infections.

Device removal caused the most dissatisfaction among staff. Further training was organised, with experienced staff attending a 20-minute session focused on how to identify a potentially painful removal and the administration of local anaesthetic at the exit site. Staff who are not prescribers were able to use a patient group direction (see NICE Medicines practice guideline [Patient Group Directions](#)) written specifically for this purpose.

The evidence gathered from the evaluation enabled the organisation to proceed with the routine use of SecurAcath. The team now place between 450 and 500 PICCs per year using SecurAcath and estimate a cost saving of £25 per placement (assuming a 3-month dwell time).

The overwhelming benefit of the device is migration prevention. This has had a significant impact on the hospital's PICC insertion service and chemotherapy clinics by minimising the nursing time dedicated to the investigation and management of migrated PICCs and, consequently, has led to further significant cost savings.

Lessons learned

- Infection rates were initially high in the evaluation as a result of unfamiliarity with the device. This has been successfully resolved after widespread training sessions.
- Having an [algorithm](#) for predicting patients most likely to experience pain on removal has improved the patient experience by prompting the use of local anaesthetic.

- Additional securement (StatLock) should be used on dual lumen catheters if they have multiple infusion lines, because the weight can pull the venous catheter through the SecurAcath device.

6 How to implement NICE's guidance on SecurAcath

The experiences of contributors have been used to develop practical suggestions on how to implement the NICE guidance on SecurAcath. Local organisations will need to assess the applicability of the learning from the examples of current practice, taking into consideration the time, resources and costs of an implementation programme. To implement this technology into routine practice, contributors to the resource suggest the following steps.

Project management

This technology can be best adopted using a project management approach. NICE has produced the [into practice guide](#), which includes a section on what organisations need to have in place to support the implementation of NICE guidance.

Implementation team

The first step is to form a local project team who will work together to implement the technology and manage any changes in practice.

Individual NHS organisations will determine the membership of this team and how long the project will last. Consider the following membership of the team so that the guidance is implemented in an effective and sustainable way:

- **Clinical champion:** they could be a senior clinician or manager with an interest in IV access, and should have the relevant knowledge and understanding to be able to drive the project, answer any clinical queries and champion the project at a senior level.
- **Project manager:** they could be someone in a clinical or managerial role who will be responsible for the day-to-day running of the project, co-ordinating the project team and ensuring the project is running as planned.
- **Management sponsor:** they will be able to help assess the financial viability of the project, ensure the business case is prepared and help to show the cost savings achieved.
- **Procurement team:** they will be able to assist with negotiations for a high volume and low cost item.

- Anaesthetists: they may be interested in implementing the technology concurrently in critical care for non-tunnelled central venous catheters.
- Interventional radiologists: the implementation of the technology may be of interest to them as they may be providing the service.
- Clinical audit facilitator: they will be able to help set up systems to collect and analyse local data needed to measure the project's performance and carry out audits.

Assessment of readiness

Questions the project team may wish to consider when preparing to adopt this technology are:

- Will a pilot period be helpful?
- How will project performance measures at a local level be identified and implemented?
- Who will be responsible for collecting clinical data?
- How will the training needed for insertion and removal be provided?
- How can effective communication be ensured?
- Are there any obvious challenges and how can these be overcome?

Resource impact

NICE has published a [resource impact report and template](#) that can be used by NHS commissioners and providers to better understand the local costs associated with adopting SecurAcath. The national assumptions used in the template can be altered to reflect local circumstances.

NICE estimates that around 128,000 people in England with peripherally inserted central catheters (PICCs) in place for 15 days or more may be eligible for SecurAcath. Uptake will increase over 5 years, with around 121,000 people having SecurAcath in 2021/22 onwards. The minimum annual saving estimated from implementing the guidance is around £4.2 million. This is equivalent to around £7,700 per 100,000 population.

Business case

Producing a business case should be a priority for the implementation team. Local arrangements for developing and approving business plans will vary from trust to trust, and each organisation is likely to have its own process in place.

The business case for SecurAcath should include:

- NICE and other national guidance:
 - NICE medical technologies guidance on [SecurAcath for percutaneous catheters](#)
 - The NICE guideline on [healthcare-associated infection: prevention and control in primary and community care](#)
 - Infection Prevention Society, Royal College of Nursing, and National Infusion and vascular access society (NIVAS) - [Vessel Health and Preservation Framework \(2015\)](#).
- A resource impact assessment (see [resource impact](#)).
- A summary of any proposed pilot studies, evaluations or results of any already completed including criteria reviewed. Contributors suggest criteria could be: ability to insert, ability to attach catheter, ability to close the device, ability to clean around the device at dressing changes, comfort to the patient, data on the number of malpositioned and damaged catheters.
- Any current and anticipated (following implementation) catheter complication rates such as dislocation, migration, replacements, incidences of deep vein thromboses while PICC is in place, rates of skin complications from medical adhesive devices and site infection rates.

Selecting patient groups

NICE guidance recommends the use of SecurAcath for PICCs with an expected dwell time of 15 days or more. Contributors to this resource highlight 2 groups of patients who would benefit from this technology irrespective of predicted dwell time:

- Patients presenting with confusion who may be at risk of pulling out the venous catheter.
- Patients presenting with excessive sweating where other methods of securing percutaneous catheters may be unsuccessful.

One organisation is currently piloting the use of the SecurAcath for all midlines to address increased workload issues presented by winter pressures. Their initial findings indicate that reducing the venous catheter migration and replacement rate by using SecurAcath has resulted in cost savings.

Another contributor now uses SecurAcath for non-tunnelled central venous catheters in critical care following the success of SecurAcath for PICCs in their organisation.

All contributors emphasised the importance of clinical benefit on the decision to implement rather than using the predicted dwell time to make this decision. Replacements rates should also be considered a key factor.

Measuring success

It is important to record a baseline assessment and take measurements during and after implementation to show the cost and clinical benefit of adopting SecurAcath. Sites involved in developing this resource suggested the following measures could be used and that it is important to agree who is responsible for collating and managing these data:

- catheter migration or dislodgement rates
- catheter replacement rates
- catheter site infection rates
- deep vein thrombosis rates
- patient experience audits.

Contributors reported the ability to collect these measures will vary depending on service setup, staff resources and information technology.

One service introduced a venous catheter insertion and removal chart for staff to record any difficulties. These charts are sent to the IV therapy nurse consultant who keeps a central record detailing difficulties and reasons for removal. This has enabled a record to be kept for all venous catheters placed.

Incident form reporting is another mechanism by which adverse events can be identified and risks monitored.

Training

All contributors advise that training for insertion, maintenance and removal of SecurAcath is essential, and perseverance is critical.

- Additional appointment time may be needed at first to ensure correct placement. Practitioners need to become familiar with the device to prevent skin indentation and anchor migration.
- The company provides face-to-face training and post-implementation support. Contributors found the videos and mobile application for SecurAcath placement and removal to be helpful additions to training (both available on the company's [website](#)).
- An education plan should be in place before implementation and should detail who will need training, and to what level. Consider the fact that a more diverse staff base will be responsible for removing the device than those inserting the technology. Staff who insert the device are generally IV access dedicated practitioners and have more experience with PICCs than staff who remove them.
- PICC training can be split into 2 levels: PICC level 1 (basic care and maintenance) and PICC level 2 (complication management and advanced techniques such as SecurAcath removal).
- Clinicians should be accountable for independent placing and removal of SecurAcath following training. SecurAcath should only be placed by practitioners with accountability for placing PICCs and removed by practitioners who have training to do so.
- Some patients may need local anaesthetic for removal of the device.
 - Identify if a patient group directive for lidocaine exists in the service.
 - If so, ensure appropriately qualified staff are available to administer if needed.
- Share experiences and watch experienced staff use the device to gather tips and advice.

Practical tips from contributors for successful SecurAcath insertion

- A few extra centimetres are needed to accommodate SecurAcath. If there is insufficient length this may result in the catheter 'kinking'.
- Do a surgical nick in the skin below the cannula before the introducer is placed, otherwise the introducer needs to be 'corkscrewed' into position. This nick also allows the tips of the device to be positioned. Although a surgical nick in the skin helps with placement, there is some evidence to suggest that this may increase bleeding at the insertion site and may potentially

increase risk of site infection because of a larger breach of the skin. However, these risks are minimal and must be weighed up against the need to safely and correctly place SecurAcath.

- Push the device in as far as possible and then pull back to ensure it has gone through the dermis layer and is not lying intradermally.
- Directing the catheter dressed towards the shoulder ensures it doesn't pull down on the device causing discomfort.
- To avoid indentation beneath the device a gauze dressing placed above and below can act as a cushion to protect the skin.

Practical tips from contributors for successful SecurAcath removal

- Removal requires a swift pluck in order to remove the device with minimal pain. This takes some time to master.
- If, for a clinical reason, the PICC needs to be removed but there are no trained staff available to remove SecurAcath, the device can be opened and the PICC removed. The SecurAcath can be removed at a later stage when trained staff are available.
- Having an algorithm for predicting patients most likely to experience pain on removal has improved the patient experience by prompting the use of local anaesthetic.

Developing local documentation

The following are examples of tools developed by NHS services using SecurAcath, which can be used for developing local documentation. They have not been produced, commissioned or endorsed by NICE:

- The Royal Marsden NHS Foundation Trust, [Policy for the insertion and care of central venous access devices in hospital](#)
- The Royal Marsden NHS Foundation Trust, [Guidelines for Care of a Peripherally Inserted Central Catheter by Community Staff/Practice Nurses](#)
- Aintree University Hospital NHS Foundation Trust, [IV service year-end report 2015–2016](#)
- Aintree University Hospital NHS Foundation Trust, [Peripherally Inserted Central Catheter Booklet](#)

- Velindre Cancer Centre, [Guidelines for the Care and Maintenance of a peripherally Inserted Central Catheter](#)
- Velindre Cancer Centre, [Community PICC guide](#)
- Velindre Cancer Centre, [SecurAcath removal algorithm](#).

7 Acknowledgements

NICE would like to acknowledge and thank the following people for their valuable contribution to this resource.

Dr Lisa Dougherty

IV therapy nurse consultant, The Royal Marsden NHS Foundation Trust

Ms Meinir Hughes

IV access nurse specialist, Velindre Cancer Centre

Mr Matthew Hobley

IV nurse practitioner, East Kent Hospitals University NHS Foundation Trust

Dr Matthew Jones

Consultant anaesthetist, East Kent Hospitals University NHS Foundation Trust

Mr Chris O'Loughlin

IV access specialist nurse, Aintree University Hospital NHS Foundation Trust

Mr Roy Ventura

IV access specialist nurse, Aintree University Hospital NHS Foundation Trust

One contributor received financial help from the company towards fees for the 2013 Association for Vascular Access conference. Another contributor had funding from the company to attend a conference in Amsterdam in 2012.

8 About this resource

This resource accompanies NICE medical technologies guidance on SecurAcath for securing percutaneous catheters. It was developed using NICE's [process guide for adoption support](#)

resources for health technologies. It is an implementation tool that summarises the experiences reported by NHS sites which have adopted this technology and shares the learning that took place.

It is the responsibility of local commissioners and providers to implement the guidance at a local level, being mindful of their duty to advance equality of opportunity and foster good relations. Nothing in this document should be interpreted in a way that would be inconsistent with this.

[More information about the adoption team.](#)

ISBN: 978-1-4731-2515-5