**Canberra Hospital and Health Services**

**Operational Procedure**

**Automated Medication Cabinets (Pyxis**©**)**

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| --- |
| Contents |

[Contents 1](#_Toc509311622)

[Purpose 2](#_Toc509311623)

[Scope 2](#_Toc509311624)

[Introduction 2](#_Toc509311625)

[Alerts 3](#_Toc509311626)

[Roles & Responsibilities 3](#_Toc509311627)

[Section 1 – User Access 3](#_Toc509311628)

[Section 2 –Pyxis Imprest and Legislative Requirements Compliance 4](#_Toc509311629)

[Section 3 – Patient Details 6](#_Toc509311630)

[Section 4 – Accessing Medications 7](#_Toc509311631)

[Section 5 – Quantities / Minimum Dose Units 10](#_Toc509311632)

[Section 6 – Discrepancies 10](#_Toc509311633)

[Section 7 – System Down 12](#_Toc509311634)

[Section 8 – Archive Data 13](#_Toc509311635)

[Section 10 – Cleaning 13](#_Toc509311636)

[Related Policies, Procedures, Guidelines and Legislation 14](#_Toc509311637)

[References 15](#_Toc509311638)

[Definition of Terms 15](#_Toc509311639)

[Search Terms 16](#_Toc509311640)

[Attachments 17](#_Toc509311641)

[Attachment 1: User Access Permissions and Responsibilities 18](#_Toc509311642)

[Attachment 2: Quick guide – ED Pyxis Levels of System Access 22](#_Toc509311643)

[Attachment 3: Pyxis MedStation ES System - Station Quick Reference Guide 23](#_Toc509311644)

|  |
| --- |
| Purpose |

To describe the procedure to be followed for the safe and secure operation of the Pyxis MedStation in the Emergency Department (ED) at the Canberra Hospital and Health Services (CHHS). This procedure outlines access privileges, medication administration, medication inventory management and infrastructure or machine failure security arrangements.

[*Back to Table of Contents*](#Contents)

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| --- |
| Scope |

This procedure applies to staff who are granted access to the Pyxis automated medication imprest system within the ED. This includes:

* Nursing staff
* Medical Officers
* Pharmacy staff
* Relevant Administration Support staff

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Introduction |

Pyxis is a medication management system. The system includes a network of secure storage units (Pyxis MedStations) located throughout the ED This advanced electronic controlled system automates the distribution, management and storage of medications within the ED.

Pyxis provides interfacing with the Pharmacy inventory management system (Merlin), the Emergency Department Information System (EDIS), the ACT Patient Administration System (ACTPAS) and the ACTGOV network. This ensures currency of patient information and medication usage data.

Information stored on the Pyxis MedStations is accessible to System Managers, Pharmacy and other identified groups automating stock inventory and reporting functions.

The Pyxis MedStation automates and manages the distribution of the ED imprest medications including Controlled Medications. The system comprises of a network of computerised secure units located throughout the ED.

Authorised users access the Pyxis MedStation with their ACT Government login name along with a password or finger scan (biometric). Authorised users are assigned to user groups which provide specific access privileges.

Transaction information is automatically recorded for restocking and accounting purposes. The Pyxis MedStation is connected to essential power and is supported by an internal battery.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Alerts |

All staff must ensure they comply with relevant legislation, regulations, policies and procedures relating to the storage and administration of medication when using the Pyxis System and MedStations.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Roles & Responsibilities |

The system owner of Pyxis within the ED is the ED Consultant with Pyxis as their portfolio. The operational management and delegations are outlined in Attachments 1 and 2.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Section 1 – User Access |

Each staff member must be granted user access prior to using Pyxis through the Identity and Access Management (IAM) system. Staff members are then assigned to user groups. Once staff are assigned to a user group they must use their ACT Government network log on and password to use Pyxis.

All staff require two forms of identification to access the Pyxis MedStation. User name and password are compulsory for first time access. For ongoing access, password is replaced by biometric scanning via fingerprint. Users are prompted to register their fingerprint on their first log on to Pyxis MedStation. Further detailed instructions on biometric scanning are found in the Pyxis MedStation User Manual (Attachment 3).

**Temporary Users**

Where immediate access is required for a staff member, super users can create temporary access profiles. An access expiry date **must** be entered when creating a new user profile. It is recommended that user names are slightly different to avoid confusion when formalising the permanent profile. The monitoring of staff access for this group is the responsibility of the relevant Systems Managers. For further information on Systems Managers please see the *Management of Pyxis in the Emergency Department Operational Policy.*

The Systems Managers are to remove temporary access once the temporary user is allocated a permanent profile.

**Security**

End users have a role in ensuring and supporting system security by notifying System Managers promptly when concerns arise.

Systems Managers are responsible for the timely removal of access rights for staff who no longer work or are no longer employed in the Emergency Department. For Pharmacy staff the Pharmacy Manager completes this through IAM. Access rights should be reviewed six monthly in line with medical rotations and the natural attrition of staff within the departments. Medical staff may remain active where a return to the area throughout the year is likely. Access to Pyxis is removed when staff leave ACT Health.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Section 2 –Pyxis Imprest and Legislative Requirements Compliance |

1. **Imprest**

Pharmacy is responsible for reviewing usage and assigning the ED imprest. Pharmacy staff are responsible for the routine restocking of the Pyxis MedStations.

Requests for drugs to be added to the inventory or changes to inventory are to be directed to Systems Managers and the Lead Pharmacist Critical Care Division.

1. **MedStation Inventory**

MedStations contain and/or manage the following categories of medication:

* The majority of ED pharmaceutical imprest stock
* Controlled Medicines and other Restricted Drugs (S4D)
* To Take Home (TTH) medications (pre- labelled medication)
* Refrigerated medications where a Smart Remote Manager (SRM) is affixed to a co-located refrigerator.

MedStations do not contain and/or manage the following:

* Items supplied by pharmacy for specific individuals i.e. individual patient dispensed medications. Refrigerated medications may be exempt where SRMs are in use
* IV fluids, irrigations solutions, antiseptics, blood glucose testing strips, urinalysis strips, ampoules of water and saline
* Drug administration devices such as spacers and nebuliser masks
* Selected drugs that are either required in an emergency (e.g. those currently stored in emergency resuscitation trolleys) or will not fit in the Pyxis MedStation (e.g. creams and lotions.
* ‘Patient’s Own’ medications

Some Pyxis MedStations may also store smaller non pharmaceutical equipment and stationery[[1]](#footnote-1) for security and tracking purposes.

1. **Medications Requiring Counting**

All controlled medicines, schedule 4 D (S4D) and other nominated medicines require confirmation of the count each time they are accessed. It is a legal obligation that all medication count discrepancies **must** be resolved immediately and before the end of the shift.

1. **Restocking Emergency Trolleys and Resuscitation Room Trolleys**

Emergency medication in Triage, ED Emergency Trolleys and Resuscitation Room Trolleys are not tethered to or controlled by a Pyxis MedStation. However, medication to restock these emergency trolleys/locations is sourced from a Pyxis MedStation. After logging on, the user should remove the medication required to restock the emergency resuscitation trolley against the patient’s name who was administered the emergency medication as soon as possible. If the patient has left the ED and their patient details cannot be located on Pyxis using Global Search, the Destock option can be utilised by the ED Registered Nurse Level 3.1 (RN3) on duty. If a medication is destocked, the staff member removing the medication must perform a count verification on the medication line. Medication **must not** be taken from Emergency and Resuscitation trolleys for any purpose other than for emergency treatment within the department.

Note: if medication is destocked in emergency situations a patient label must be entered into the ‘*destock book’* located with the Pyxis MedStation in the resuscitation area medication room.

1. **Refilling Controlled Medicines / S4D Medication in the Pyxis MedStation**

* Pharmacy automatically generates requisitions for restocking controlled medicines and S4D medicines three times a week or as required
* If additional supply is required, nursing staff can ordercontrolled medicine / S4D medicines via the Drugs of Addiction Requisition Book
* Supplied medications are entered into Pyxis MedStations via the ‘*refill’* function.

1. **Inventory Counts – Controlled Medicines / S4D**

As per legislative requirements, a count of controlled medicines/ S4D medication in each Pyxis MedStation is required once per shift. This is completed via the *‘inventory option’* from the Main Menu.

1. **Expiry Tracking**

Staff **must** check medication expiry dates prior to administration as part of normal medication checking procedure. If a controlled / S4D medication is found to be expired when accessed, the medication is to be returned to the cubie pocket and the ED pharmacist contacted for destruction of the medicine on the ward.

Note: all other expired medications may be returned to pharmacy following normal procedures.

Pharmacy technicians check expiry dates for medications when replenishing Pyxis MedStations.

[*Back to Table of Contents*](#Contents)

|  |
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| Section 3 – Patient Details |

1. **Patient Details**

Standard patient details are provided to each Pyxis MedStation via the Emergency Department Information System (EDIS) and ACT Patient Administration System (ACTPAS) interfaces. **Patient details will not be found on the Pyxis MedStation patient list until patient registration is completed** **and the patient has been allocated to an ED bedspace/area.**

1. **Patients Not Yet Available on Pyxis MedStation Through Routine Interfaces**

The generation of a temporary patient **may only** be performed for resuscitation patients where urgent medication is required. In all other instances, patients are to be registered following point (A) as above or following the unknown patient pathway point (E) below. Patients requiring resuscitation on arrival may have medications sourced from resuscitation trolleys. Emergency access to Pyxis MedStation for resuscitation medications can be obtained by the ED RN3 using the ‘*destock’* function.

Patients may be added temporarily to the system through the ‘*all available patients*’ icon then ‘*add patient*’ icon. The asterisk (\*) indicates required fields. Temporary patients will not merge automatically with the EDIS / ACTPAS record but require manual merging. This will be completed by the EDIS Administrators only.

1. **Supplying Other Wards with Medication From the Pyxis MedStation**

Where a medication is **urgently** requested from the department for a ward patient and

**no other hospital supplies are available**, medication may be withdrawn from the Pyxis MedStation using the ‘*global search’* function. This can be accessed through the ‘*all available patients*’ icon. The patient’s name and UR number is required to withdraw medication. Patient care area should also be included to allow for tracking. Supplying other areas of the hospital from ED imprest is discouraged due to the limited stock carried within the Pyxis MedStation.

1. **Discharge Transfer of Patients**

When the patient is discharged from EDIS / ACTPAS, the patient’s name is no longer displayed on the Pyxis MedStation, this occurs automatically and immediately. Ensure all medications have been administered prior to discharging the patient from EDIS (e.g. To Take Home / prepack medications).

1. **The ‘Unknown Patient’**

Accessing and recording medication administration for an ‘unknown patient’ is to follow the Unknown Patient procedure *(Patient Identification and Procedure Matching Procedure; Section 15 – Patient identification processes for unknown patients*). If medications are required in emergency situations before the ‘unknown patient’ is registered, follow procedure outlined in Section 3 Part B above.

[*Back to Table of Contents*](#Contents)

|  |
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| Section 4 – Accessing Medications |

ED users log onto a Pyxis MedStation to access medications. Medication may only be removed for one patient at a time. If the medication is not routinely stocked in the Pyxis machine, the staff member is to obtain the medication from pharmacy.

1. **Non- Controlled Medicines / S4D Medications**

To remove an item from the Pyxis MedStation:

1. Log on to the Pyxis MedStation
2. Select ‘*all available patients’*
3. Type the first three letters of the patient’s last name into the search box to locate the patient
4. Select the patient by touching the screen to highlight the patient’s name
5. Select ‘*remove’*. The non-profile medication screen will then appear
6. Enter the first three letters of the medication using the generic name, select medication by touching the screen to highlight the medicine name. If the medication does not appear on screen the user should check the Pyxis Imprest list located with the Pyxis MedStations
7. Check the right drug, right drug form and appropriate strength are displayed, then enter the quantity of medication for removal and select ‘*OK’.* This moves the medication to the ‘*selected meds’* on the right hand side of the screen
8. Multiple medications may be chosen at this time following the above process (steps 6-8)
9. When all required medications have been added to the ‘*selected meds’* list, select ‘*remove meds*’ and the drawer will open allowing access to medication
10. Drawers open individually for each medication. Only remove the medication and quantity you have selected from the Pyxis MedStation. Removing other medications and excess quantity will effect stock control
11. Close drawer when prompted by MedStation to access subsequent medications / drawers. Please ensure drawers are not forcefully closed as this will damage the Pyxis MedStation.
12. **Controlled Medicine and S4D medication**

Access to add, remove or witness controlled medicine / S4D medication is determined by the staff member’s role within the Emergency Department or Pharmacy. A valid witness is required for all controlled medicines and S4D medication transactions. After entering the quantity of controlled medicines or S4D to be removed, a witness must log on to the system using their user name and password or BioID. A full audit trail of each transaction is recorded by Pyxis.

1. Follow steps 1-8 as above.
2. Multiple medications may be chosen at this time following the above process (steps 6-8)
3. When all required medications have been added to the ‘*selected meds’* list, select ‘*remove meds*’
4. The witness will now be required to log on. The medications that require a witness for verification during removal will be listed
5. For partial doses users may either ‘*waste now*’ or ‘*waste later’* see below section on dealing with ‘*waste’*
6. A free text field will appear. The prescriber’s name must be entered to comply with legislative requirements
7. When the required details are completed, select ‘*accept’*
8. The *‘verify medication count’* screen then appears and the drawer and cubie box containing the requested medication opens. Only one medication type is accessible at a time
9. Enter the actual beginning count of the medication in the cubie box
10. If this is not consistent with the expected number, a recount will be requested. Re-enter the beginning quantity
11. If the expected number differs a second time, a discrepancy will be created. Discrepancies are not immediately evident during the current transaction. The ED RN3 must be notified promptly of the discrepancy once it has been identified
12. Once count is accepted:
13. Remove the required quantity as listed on the screen ( the amount to be removed may be altered by pressing the ‘more’ or ‘less’ arrows)
14. Press ‘accept’ when correct
15. Close individual cubie box prior to closing drawer.
16. **Discarding of Unused Medication Via Pyxis (Waste)**

Discards are referred to as ‘waste’. Partial doses offer two discard options: ‘*waste now*’ or ‘*waste later*’. Users are to choose the *‘waste now*’ option where the order is a documented partial dose. Where medication is to be titrated, the ‘*waste later*’ option may be selected. The user must administer the medication, discard any unused portion, and then return to the Pyxis MedStation to enter the discarded amount in the ‘*waste now*’ option against the appropriate patient. A witness must log on to observe the entire process.

To waste a medication:

1. Log on
2. Select patient
3. Select ‘*waste’.* The ‘*meds to waste’* screen shows a list of medications from the previous 24 hours that are not wasted or returned in full
4. In the ‘*medications to waste’* column, select the medication. The medication then moves to the selected meds list
5. Select ‘*waste’*
6. Enter the amount to be wasted
7. Select ‘*accept’*  or ‘*cancel med’* at the bottom of the screen
8. A witness may be required depending on medication being wasted.

If wasting medication remaining in a PCA / Epidural / Syringe driver that was previously dispensed via Pyxis MedStation:

1. Select waste from the main menu
2. In ‘*waste meds’* select the appropriate patient
3. Select the medication to be wasted
4. Enter the amount in milligrams/ micrograms given as prompted and select ‘*Accept*’.

Note: When wasting medications that were not dispensed through Pyxis MedStation, this should be recorded in the Waste register book located in the resuscitation medication room.

1. **Refrigerated Medications**

Refrigerated medications are accessed through the Pyxis MedStation that are linked by a SRM. When these medications are accessed, the SRM will unlock the refrigerator, allowing access. Once the medication has been removed, the door is to be closed and the SRM will relock.

1. **Medication Returns**

Where a controlled medicines / S4D medication has been removed from a Pyxis MedStation but not administered, the medication can be removed from the patient’s dispensing history and discarded in Pyxis MedStations using the waste function. Only Panadeine Forte ‘To Take Home’ packs can be returned to the Pyxis MedStations. No pharmacy return bins are provided within the Pyxis MedStation.

All other medications (non-controlled medicines / S4D), removed from the Pyxis MedStation, but not administered are not to be returned to the Pyxis MedStation but discarded or placed in the Return to Pharmacy box.

1. **Patient Own Medication and Non-Imprest Controlled Medicines / S4D Medication**

No patient owned medications are stored in the Pyxis MedStation, with the exception of refrigerated medications.

A medication safe is located in the ED Annex for temporary storage of patient owned controlled medicines / S4D medications. These medications must be registered and signed for in the controlled medicines / S4D Register book located with the safe. Medications should be stored in this safe for as short a time as possible. Keys are located with the ED Navigator.

1. **Individual Patient Dispensed Medication**

Individual patient dispensed medications supplied by Pharmacy are not to be stored in the Pyxis MedStation. Refrigerated individual patient dispensed medications (e.g. insulin, iron infusions) which are dispensed by pharmacy will be stored in a Pyxis MedStation controlled refrigerator with an electronic lock system. To add or remove an item:

1. Log on to the Pyxis MedStation attached to the refrigerator
2. Select the remove function and the appropriate patient
3. Within the drug list select ‘*fridge access’*. This will unlock the refrigerator, allowing access to Individual patient dispensed medication
4. **The Drug listed as ‘*fridge access’* must only be used to access i**ndividual patient dispensed **refrigerated medications.**

[*Back to Table of Contents*](#Contents)

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| Section 5 – Quantities / Minimum Dose Units |

Users are to remove only those medications due for immediate administration and only the required dose, according to the minimum dose unit.

The minimum dose unit for injections and orals is one vial/ampoule/tablet/capsule etc and for controlled medicines / S4 oral liquids, it is usually 1mL but may be set to a fraction of a millilitre. When a whole bottle is removed, but only a fraction of the contents used, the remainder of the bottle should be returned to the Pyxis MedStation. Some liquids such as Aluminium Hydroxide (Mylanta) will not be part of a Pyxis MedStation’s imprest due to the large size of the bottle, and the risk of leakage. For example, if only part of a dose is to be given, such as half a tablet, the user must still remove a whole tablet and waste the remainder.

1. **Medication Messages**

* Stock out – indicates the stock in the Pyxis MedStation has run out
* Stock critical low - indicates the Pyxis MedStation is running out of stock.

If users notice the message ‘*critically low level’* or *‘stock out’*, they should complete an Imprest Request form and scan this to Pharmacy.

[*Back to Table of Contents*](#Contents)

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| Section 6 – Discrepancies |

A discrepancy occurs when a user enters the quantity of a medication counted which differs to the quantity expected.

1. **Controlled Medicines and S4 Discrepancies**

Controlled medicines and S4D discrepancies are to be reported immediately to the ED RN3. Discrepancies involving controlled medicines and S4D medications are significant. As per legislative requirements, prompt investigation and resolution of discrepancies is mandatory.

Where a discrepancy arises the ED RN3 is to:

* Clarify and reconcile the discrepancy at the respective Pyxis MedStation with the relevant staff at the time of discovery
* Where a discrepancy is left undocumented, the ED RN3 on that shift will be responsible for the stock count error
* Document Riskman discrepancies by the end of the shift, at the Pyxis MedStation using the appropriate fields
* Record the discrepancy reason on the Pyxis MedStation using the list on the ‘*discrepancy created'* screen. If the reason is not listed, the reason is to be entered as free text in the final reason located in the ‘*more information*’ box at the bottom of the screen.
* Escalate to the ED Clinical Nurse Consultant (CNC) where a discrepancy is not immediately resolvable. During after-hours times, the After-Hours Clinical Nurse Consultant (AH CNC) is to be informed.
* The ED Systems Managers and Pharmacy Manager have comprehensive discrepancy resolution privileges. ED Systems Managers however, have the responsibility for resolving discrepancies. ED RN3’s have restricted resolution privileges which allow for uncomplicated discrepancy reconciliation such as controlled medicines / S4D medication miscounts during a shift.

Where a discrepancy is unresolvable, the ED CNC or AH CNC will escalate the matter to the ED Assistant Director of Nursing (ADON) promptly or as soon practical. Ongoing unresolved discrepancies must also be reported to the Director of Pharmacy and the ED Consultant with Pyxis as their portfolio.

1. **Monitoring for Discrepancies**

At the end of each shift all discrepancies must be addressed for each Pyxis MedStation. Pod Leaders are responsible for checking this has occurred and escalating to the RN3 to resolve discrepancies. When discrepancies occur, the RN3 must document, resolve where possible or escalate to the CNC as appropriate and authorised.

1. **Resolving Discrepancy Reports**

The ‘*inventory function’* should be used to check the current stock level and to verify the quantity in the Pyxis MedStation.

* Prior transactions are to be reviewed and confirmed with relevant staff
* System Managers may generate a drug specific transaction report by selecting ‘*reports*’ then ‘*events*’, then typing in a medication in the search bar. Highlight the correct drug then select *‘run report’*.
* Additional transaction data can be accessed by the System Managers from the Knowledge Portal.
* ED RN3 and System Managers can view or print reports at each MedStation as part of discrepancy monitoring for current patients. The Enterprise Server stores 90 days of reports. After this time the reports are stored on the Knowledge Portal. These reports include:
* All Discrepancies
* Undocumented Discrepancies
* Documented Discrepancies

1. **Non Controlled Medicine Discrepancy Report**

Discrepancies on non-controlled medicines / S4D medications may be found when the Pyxis MedStation is refilled by Pharmacy. Pharmacy provides monthly stock adjustment reports which are obtained from the Pharmacy Inventory Management System (Merlin) to enable the cost of missing medications to be journaled to ED

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Section 7 – System Down |

For further information on System Down processes please also see the C*ritical Care Business Continuity Plan 2017/2018* and the *Canberra Hospital Emergency Department Emergency Response Plan 2018.*

1. **Network down / Power on**

Where there is lack of data transfer between EDIS/ ACTPAS, Merlin and the Pyxis MedStation, the Pyxis MedStation will run independently of the network. Patients are required to be added as temporary patients during these network down periods. Patient details are later reconciled by the EDIS Administrators.

1. **Power Failure**

Stations draw power from the red emergency supply power points and remain operational in the event of a power outage. In rare instances of no emergency power to the ED, the Pyxis MedStation will lose functionality.

Manual and controlled access to the Pyxis MedStation is available. After notifying the ED ADON and, CNC or AH CNC, the ED RN3 may manually open the Pyxis MedStation. Two keys are held by the ED RN3 for emergency access to a Pyxis MedStation. Additional Pyxis MedStation keys are stored in the Pharmacy Department, ED CNC office and AH CNC.

Prior to manually opening the Pyxis MedStation, the ED RN3 will delegate a Registered Nurse to remain with the open Pyxis MedStation for the duration of the manual mode access. The delegated nurse is to document all controlled medicines / S4D withdrawals from the Pyxis MedStation and ensure accountability and correct process for access to these medications. Drug register books are kept at the Nurse Navigator desk for these emergency situations. The delegated nurse is to ensure pharmacy are provided or have access to the details of withdrawals that occurred during the manual operation period.

1. **Pyxis MedStation Failure**

Assistance is provided by the following:

Business hours

* ED Registered Nurse Level 3 (ED Clinical Coordinator, ED Nurse Navigator)
* ED Clinical Support Nurse
* ED Clinical Nurse Consultant

After Hours

* Only the ED RN3 or AH CNC may contact the Pyxis Support Line

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| Pyxis Support Line: 1800 016 980 |
| Care Fusion Customer Number: 10173106  Model: Pyxis MedStation ES Non Profile  Serial Numbers are found on the back of each machine |

1. **Repairs and Maintenance**

During system repair or maintenance, access to the handling of medications is restricted.

All repair and maintenance personnel accessing the Pyxis MedStation using security keys must be under the direct supervision of an authorised representative of the Canberra Hospital. Authorised representatives include the following:

* Canberra Hospital Pharmacists, (including on-call pharmacist).
* Canberra Hospital Registered Nurses
* Other persons as designated by the ED ADON / System Managers / ED RN3 or Senior Pharmacists.

In the event that direct supervision is not available, repair or maintenance will be delayed until such time as an authorised person is available.

1. **Request to Pyxis for Repair**

To arrange external support for repairs to the Pyxis MedStation approved users may contact CareFusion as per above (Section 7, C).

1. Phone CareFusion to log a job request
2. CareFusion will make contact with the ED via email or phone to troubleshoot the issue.
3. If unable to resolve the issue CareFusion will arrange a technical officer to attend in person to resolve the issue.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Section 8 – Archive Data |

The Enterprise Server retains 90 days of report data. These reports can be exported and saved, run on demand or scheduled. The CareFusion Knowledge Portal holds all history from the Pyxis MedStation and reports can be generated at any time, by the ED Systems Managers.

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Section 10 – Cleaning |

Users accessing a Pyxis MedStation are responsible for the cleanliness of the internal and external surfaces of the Pyxis MedStation. Care should be taken to avoid damage to the Pyxis MedStation. Compartments should be closed with a firm push but never be kicked, slammed or forced shut. In order to minimise drawer or pocket failures, staff should take care not to force packaging into provided spaces. **Cubie box lids must be closed prior to closing the drawer.**

Do not use the Pyxis MedStation surface for preparing medications. Do not allow liquid to seep into any openings or seams.

When needed, clean the unit and drawers with a damp cloth.

* A non- abrasive cleaner may be used sparingly. Residue is to be removed with a clean, damp cloth.
* Do not leave a wet surface where dust may accumulate.
* Do not use alcohol to clean plastic components.
* The Bio ID scanner is protected by a film that may be cleaned with hospital disinfectants. Do not saturate the film. Dry the film or allow it to air dry.
* Never clean the scanner with tape as this will damage the protective membrane.

Disinfectants which can be used sparingly on a soft cloth include:

* 10% bleach solution
* 70% Isopropyl Alcohol in water
* Betadine 10%
* Envirocide (Metrex)
* Germ – X RU
* Kleen-Aseptic B
* LpH se
* MaxiSray
* PD CARE Surface Disinfectant
* Quatermaries 1:512
* Skar Disinfectant
* Sterall Plus spray
* Veshpern

[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Related Policies, Procedures, Guidelines and Legislation |

**Policies**

Medication Handling Clinical Policy

Clinical Records Management Policy

Clinical Supervision Policy   
Patient Identification and Procedure Matching

ACT Health Security Policy

**Procedures**

Clinical Record Documentation

Patient Controlled Analgesia

Registered Nurse/ Registered Midwife Initiated Medication

Healthcare Associated Infections

**Legislation**

*Medicines, Poisons and Therapeutic Goods Regulation* 2008

*Health Practitioner Regulation National Law (ACT) Act* 2010

*Health Regulation* 2004

*National Health Act* 1953 *Commonwealth*

*Mental Health (treatment and Care) Act* 1994

*Therapeutic Goods Act* 1989

*Poisons Standard* 2014

*Therapeutic Goods Regulations,* 1990

*Children and Young People Act* 2008

*Health Act* 1993

[*Back to Table of Contents*](#Contents)

|  |
| --- |
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[*Back to Table of Contents*](#Contents)

|  |
| --- |
| Definition of Terms |

**ACTPAS:** ACT Patient Administration System; clinical and administrative software system

**BioID:** Unique finger print authentication

**Blind Count:** Requires the end user to enter the quantity instead of showing the expected beginning count and asking for confirmation or correction

**Controlled Medications:** Controlled medicines are medicines listed under Schedule 8 of the [Commonwealth Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)](https://www.legislation.gov.au/Details/F2016L00174)

**Count Discrepancy:** The physical count is different to the inventory count

**EDIS:** Emergency Department Information System; clinical system software for patient flow management and data collection

**End User:** ED medical and nursing staff conducting transactions with a Pyxis MedStation

**Enterprise Server:** Stores 90 days of information, access via internet interface

**Keys:** Manual opening of a Pyxis MedStation in emergency situations

**Knowledge Portal:** Pyxis web- based data collection application allowing for the generation of KPI, inventory and compliance reports

**Merlin:** Pharmacy business management software suite

**Non Profile:** Manual medication selection from a Pyxis MedStation for registered patients where orders have not been uploaded. Medication orders may or may not have been reviewed by a pharmacist. All medication stored within the Pyxis MedStation is available on the screen

**Privilege:**  Individual access level granted to staff by System Managers. Determined by user role and legislative requirements

**Profile:** Patient specific medication (profile) automatically uploaded from an electronic medication chart and reviewed by a pharmacist before being listed available for selection and administration from a Pyxis MedStation. All ‘active’ medication orders will be visible on the Pyxis MedStation screen.

**PTO:** Mains power outlet

**Smart Remote Manager and Pyxis Remote Manager:** Software module and electronic latch system for controlling medication stored in refrigerators and monitors refrigerator temperature.

**Station:** Pyxis MedStation

**Super User:** Nurse Coordinators and ED Nurse Educators with system administrative privileges and user education capability

**System Manager:** ED Clinical Nurse Coordinator, ED Clinical Support Nurse, Clinical Information Pharmacist and A/- Deputy Director Pharmacy. Highest level system administrative rights assigning privileges to all others. Monitors and reports on Pyxis MedStation application in the ED and Pharmacy

PA to ED Clinical Director has restricted system manager privileges to allow uploading and removal of medical staff with each term rotation

**Waste:** The discarded portion of a dose for partial orders

**Witness:** Authorised staff member with access privileges to check and count. Registered nurses, endorsed enrolled nurses and medical officers will be assigned this privilege.

[*Back to Table of Contents*](#Contents)

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| --- |
| Search Terms |

Automated Medication Cabinet, Automated Medication Dispensing Machine, MedStation, Pyxis, Smart Remote Manager, SRM, medication, CareFusion.

[*Back to Table of Contents*](#Contents)

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| Attachments |

Attachment 1: User Access Permissions and Responsibilities

Attachment 2: Quick guide – ED Pyxis Levels of Security Access

Attachment 3: Pyxis MedStation ES System - Station Quick Reference Guide

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*Policy Team ONLY to complete the following:*

|  |  |  |  |
| --- | --- | --- | --- |
| *Date Amended* | *Section Amended* | *Divisional Approval* | *Final Approval* |
| *14/03/2018* | *New Document* | *Narelle Boyd, ED Critical Care* | *CHHS Policy Committee* |
|  |  |  |  |

*This document supersedes the following:*

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| *Document Number* | *Document Name* |
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## Attachment 1: User Access Permissions and Responsibilities

All staff accessing Pyxis are responsible for compliance with relevant medication handling and storage policies and procedures.

| **Role** | **Group** | **Other Responsibilities** | **Access Permissions** |
| --- | --- | --- | --- |
| ED Clinical Director | Access A | * Ensure ED compliance with relevant legislative requirements * Oversee Pyxis Disaster management in the event of total power or network failure * Notify Chief Pharmacist when Consultant Pyxis Portfolio changes | * Access to full Pyxis inventory including Controlled Medicines/S4D medication * MedStation dispensing as per protocol * Witness of medication dispensing/administration as per protocol * Discrepancy resolution |
| ED Staff Specialist – Pyxis portfolio | System Owner | * As delegated by ED Clinical Director * Ensure legislative requirements are met concerning controlled medications * Liaise with the Director of Pharmacy as required | * Full Pyxis report access including Knowledge Portal * ‘Access A’ level of access * Ability to destock |
| ED Assistant Director of Nursing (ADON) | Access A | * Overarching discrepancy management * Ensure contract/invoicing requirements are met N.B. Budget allocation for Pyxis contract management is held by Manager, Medical Imaging * Ensure ED compliance with relevant legislative requirements | * Access to full Pyxis inventory including Controlled Medicines /S4D medication * MedStation dispensing as per protocol * Witness of medication dispensing/administration as per protocol * Discrepancy resolution |
| ED Clinical Nurse Consultant (CNC) | System Manager | * Day to day discrepancy management * Oversee audit activity of Pyxis as required * Ensure daily machine checks are completed * Address performance/compliance issues as required * Ensure routine maintenance is completed * Facilitate maintenance call outs as required * Maintain log of maintenance requests * Undertake minor fixes as per CareFusion direction * Ensure availability of Controlled Medicines /S4D logs as per legislative requirements * Hold spare keys to MedStations for manual override if needed * Periodic review of user access/permissions * Other reporting as required | * ‘Access A’ level of access * Full Pyxis report access including knowledge Portal * Create and maintain user accounts at the server for ED nursing staff * Log request for non-routine maintenance/repairs * Ability to destock |
| ED Clinical Support Nurse | System Manager | * Provide education and training to staff on the use of Pyxis * Undertake minor fixes as per CareFusion direction * Other reporting as required * Perform duties delegated from the ADON/CNC | * ‘Access A’ level of access * Full Pyxis report access including knowledge Portal * Create and maintain user accounts at the server for ED nursing staff * Log request for non-routine maintenance/repairs * Ability to destock |
| ED Nurse Unit Manager | Administration | * Submit IAM request for new ED nursing staff | * No access |
| ED Level 3.1 Registered Nurse (Navigator and Clinical Coordinator) | Patient Management | * Shift by Shift discrepancy management * Escalate discrepancies to ADON/CNC as required * Undertake minor fixes as per CareFusion direction * Add temporary users (end dated) * Add/edit nursing staff access to MedStation * Carry spare keys to MedStations for manual override if needed * Coordinate Pyxis Disaster management in the event of power failure | * ‘Access A’ level of access * Create and maintain user accounts at the server * Ability to destock * Create temporary user profiles * Log request for maintenance |
| Clinical Development Nurses (CDN) | Patient Management | * Provide education and training on the use of Pyxis as needed * Ensure and support system security by notifying System managers promptly when concerns arise | * ‘Access A’ level of access * Ability to destock |
| ED Medical Staff  ED Level 1 Registered Nurse | Access A | * Ensure and support system security by notifying System managers promptly when concerns arise | * Access to full inventory including Controlled Medicines /S4D medication * MedStation dispensing as per protocol * Witness of medication dispensing/administration as per protocol * Discrepancy resolution |
| Non-ED Nursing Staff  (Temporary Users) | Access A | * Ensure and support system security by notifying System managers promptly when concerns arise | * Temporary access to MedStation (end dated) as required * MedStation dispensing as per protocol * Witness of medication dispensing/administration as per protocol * Discrepancy resolution |
| ED Endorsed Enrolled Nurse | Access B | * Ensure and support system security by notifying System managers promptly when concerns arise | * Limited access to inventory in line with their normal dispensing rights. * Witness of medication dispensing as per protocol (Non- Controlled Medicines / S4D) only |
| ED Enrolled Nurse | Access C | * Ensure and support system security by notifying System managers promptly when concerns arise | * Restricted access to MedStation * Witness of medication dispensing/administration as per protocol (Non- Controlled Medicines /S4D) only |
| Director of Pharmacy | System Manager | * Ensure ED compliance with relevant legislative requirements * Hold spare keys to MedStations for manual override if needed. | * Full system access however may delegate tasks to System Managers as required. |
| Pharmacy Manager | System Manager | * Oversee Pyxis imprest * Inventory management * Add/remove medications to Pyxis imprest including barcoding * Other reporting as required | * Pyxis report access * Barcoding adjustments as required * Add and remove from inventory stock lists |
| ED Pharmacist | System Manager | * Ensure compliance with Controlled Medicines and S4D legislation * Ensure Pyxis inventory is maintained and updated as required. * Remove unwanted drugs from MedStations * Date checks of stock | * Pyxis report access * Add and remove from inventory stock lists * MedStation restock and destock as required |
| Pharmacy Technician | System Manager | * Stock imprest * Undertake minor fixes as per CareFusion direction for medication loading/unloading * Date checks of stock | * Pyxis report access * MedStation restock and destock as required |
| EDIS Administrators | Administration | * Merge temporary patients with EDIS/ACTPAS records | * Access to Pyxis Server only via web page interface |
| ED PA to Clinical Director | Administration | * Request Pyxis access via IAM * Add/edit user medical access | * Create and maintain user accounts at the server for ED medical staff |
| Carefusion | Vendor | * Complete maintenance and repairs as per contractual agreement * Provide IT updates as per contractual agreement. | * Full remote access * Full access under supervision when onsite |

## Attachment 2: Quick guide – ED Pyxis Levels of System Access

The following table identifies MedStation privileges for staff using Pyxis in the clinical setting

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **System Owner** | **System Manager** | **Patient Manager** | **Access A** | **Access B** | **Access C** | **Admin** |
| ED Consultant with the Pyxis portfolio | Pharmacy Director, Pharmacy Manager,  CNC, CSN | ED RN 3.1, CDN | ED Medical Staff,  RN 1, RN 2,  AH CNC, Temporary Users | ED EEN | ED EN | ED PA to Clinical Director |
| **MedStation Privileges** |  |  |  |  |  |  |  |
| * Station log-in/witness ability | **X** | **X** | **X** | **X** | **X** |  |  |
| * Witness ability only for non-Controlled Medications and S4D |  |  |  |  | **X** | **X** |  |
| * Station report access | **X** | **X** |  |  |  |  |  |
| * Activate/create temporary user | **X** | **X** | **X** |  |  |  |  |
| * Create permanent users | **X** | **X** | **X** |  |  |  | **X** |
| * Discrepancy resolution | **X** | **X** | **X** | **X** | **X** | **X** |  |
| **Medication Privileges** |  |  |  |  |  |  |  |
| * Non-accountable removal | **X** | **X** | **X** | **X** | **Limited** |  |  |
| * Controlled Medicines and S4D removal | **X** | **X** | **X** | **X** |  |  |  |
| * Inventory stocking and restocking | **X** | **X** | **X** | **X** | **Witness**  **only** |  |  |

## Attachment 3: Pyxis MedStation ES System - Station Quick Reference Guide



1. E.g. Prescription pads, camera, ring cutter. [↑](#footnote-ref-1)