i-STAT Training Guide

TNG-POC-004

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Austin HEALTH | Pathology

This Training Guide is designed to assist the Trainer when training staff for the i-STAT.

Pre- Analytical	
Health and Safety	Reinforce the need to use PPE and follow the OH&S procedures relating to blood handling.
Identify the components of the i-STAT	Identify the i-STAT device (sometimes called analyser), scanner, printer, docking/recharging station. Explain the i-STAT and printer have rechargeable batteries and can be brought to patient bedside. Explain that the docking station will allow for the transfer of results electronically as well as charging the battery.
Sample Requirements	With the exception of INR, Li Heparin/balanced Heparin tube or syringe are the only acceptable sample type. The sample must be well mixed before testing – demonstrate mixing – complete inversion of tube X 10 Explain that underfilled tubes/syringes may cause inaccurate results – show trainee the correct volume mark of tube/syringe. If clotting of sample is observed, do not use, as clots will cause errors and incorrect results. Recollect new sample. INR testing requires a finger prick sample and the first drop of blood is applied directly to the cartridge and explain that an INR from i-STAT cannot be used to assess a potential snake bite patient. Lab coagulation studies must be done in this scenario. Cord blood and Intraosseous samples are not a validated specimen type.
Cartridge Storage	If out of fridge 5 min warm-up, room temperature expiry needs to be calculated and written on pack - refer to and show display document LWI-POC-019 for specific cartridge expiry. Write room temp expiry date (DDMMYYYY) and initial each pouch stored at room temp.
Analytical	
Patient Identification & POCT Patient Reconciliation Form	Patient must be positively identified when sample is collected and sample labelled. Emphasise the correct Patient details have to be entered into i-STAT and the **potential consequences** if wrong Patient ID is entered i.e. the results going into the wrong patients records. Show the **POCT Patient Reconciliation Form** and reinforce that this needs to be filled in and sent to supervising lab **every time** a Patient ID error is made. Make sure the trainee knows where to locate these forms and show an example of a completed form.
Cartridge Handling, Loading & Order of Testing	Demonstrate how to handle a cartridge (at the sides) and show the quality control pouch on the cartridge. Explain a burst pouch and dirty electrical contacts will most likely cause error codes. Show staff where the fill mark on the cartridge is and demonstrate/observe trainee filling and closing cartridge – explain different cartridges have different closing mechanisms. Explain underfilling or overfilling will give Operator errors. Refer to LWI-POC-019 and explain the order of testing and time limits i.e. CG4+ Always first and within 10 minutes.
Running a patient sample	Observe the trainee run a patient sample and print results by following the steps in LWI-POC-019. Training UR: 123456, DOB: 01/01/2000, except for Bendigo site where UR: 555558 and DOB 01/01/1990 must be used.

Operator ID and Operator Responsibility	Explain that all testing done on the i-STAT is traceable, each operator is accountable for everything done under their Login. The Operator ID is also used to assess competency for each Operator. Tell the trainee to think of their ID like a Signature and **DO NOT SHARE.**
Post Analytical	
Significant & Critical Results	Direct staff to the Critical Limits display document and explain to the trainee that they are responsible for notifying the clinician of significant and critical results. As stated on Critical Limits – INR >3.5 must be followed up with Lab INR – Blue top tube.
Unexpected results	Explain that if results are unexpected and do not 'fit' with the clinical picture that a new blood collection and repeat testing is advised. For example, a high K result could be from underfilled tube or difficult collection. Contact lab to check any drug interferences on i-STAT.
Error Codes & Troubleshooting	Explain that errors will occur sometimes, the error may indicate the issue e.g. Underfilled cartridge. Advise the trainee to repeat the test, but if the same error reoccurs to get advice from a Superuser or Supervising Lab and to document error and action on Monthly Log. Make sure trainee can locate contact details for Supervising Lab and is aware of who are Superusers on-site.
Maintenance	
Simulator Test and Cleaning	Demonstrate simulator test and observe trainee performing test, explain that the simulator is required to be run every 24hours and testing will be locked out if this is not done. Ensure trainee is able to locate instructions for simulator test. Explain i-STAT can be cleaned with a CLINELL or similar wipe if required.
Replace Printer Paper	Demonstrate how to replace printer roll and observe trainee replacing paper. Explain if printer is not working after replacing paper, make sure the lid is closed properly.
Superuser – Only Austin Pathology Staff can train Superusers	
QC Requirements	Explain the QC is required for each type of cartridge monthly (Scheduled), testing will be locked out if not done. QC is also required for each new delivery of cartridges and when there is a new lot of cartridge received. Any QC 'Fail" results must be actioned and documented on the Monthly Log. Direct the trainee to SOP-POC-002 and go through/observe the sample preparation for each type of QC.
QAP	Explain the QAP procedure of running the samples as a patient and make sure the trainee can locate the QAP schedule. Detail the instructions for preparing and handling the QAP samples and the importance of following the instructions.
Consumables & Documentation	Make sure the superuser is aware of how to order consumables to cover supplies for one month. Explain the requirements to send any documentation Eg. Temperature monitoring to Supervising Lab each month.
Software (CLEW) Update	Describe the procedure for the bi-yearly CLEW update and make sure trainee can locate the instructions for this.

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