Bringing Lung Test Results onto Netcare

Frequently Asked Questions

Disclosure: Information contained within is accurate as of January 2019 and is subject to change, depending on software, limitations, budget, and other complexities related to this initiative.

1. **Where can I find more information about this initiative?** For more information, please visit: www.ahs.ca/pfts or contact the Respiratory Health Strategic Clinical Network (RHSCN) at respiratoryhealth.scn@ahs.ca.

2. **What do labs need in order to participate in this initiative?** There are 6 items for each lab's readiness. The following documentation is required: (1) copies of your lab's pre-existing OIPC-accepted Privacy Impact Assessment (PIA); (2) a provincial Organizational Readiness Assessment (pORA) prepared with Alberta Netcare; (3) an Information Management Agreement (IMA) co-signed with AHS; and (4) a signed Confidentiality Agreement. The following technical aspects will be required: (5) the necessary version of software secured through your vendor; and (6) one secure connection established from each lab location to AHS' server, co-created between AHS' IT and your own IT consultant. For labs using Vyaire software, this will be a VPN tunnel; your consultant should have the following skills to help secure this access: experience in configuring IPsec tunnels (phase 1, phase 2), experience with encryption algorithm related to VPNs, experience with routing, and able to create firewall rules and secure access based on port (source/destination) and IP (source/destination). No special network volume capacity is required.

3. **How long will lung testing data be stored in the central server?** Data will be stored and protected for the length of time required by both the AHS Records Retention Schedule and the College of Physicians and Surgeons of Alberta (CPSA); at present, it is 15 years.

4. **Where will the PFT reports be displayed in Netcare?** For consistency, Netcare opted to post results in the same place as existing connected PFT labs' results, which is under the Operative/Procedure/Investigation tab. In the future, a change to the location could be considered.

5. **How are patients identified in Netcare, and what happens if they have non-Alberta ULIs?** Before being posted to Netcare, results are first run through an electronic validation process to ensure a match between the patient's demographics and their Alberta ULI; even for those who have health care coverage through military, other provinces, etc., they must be assigned an Alberta ULI before their results are posted to Netcare.

6. **Can reports be edited or cancelled after being sent to Netcare?** Yes. Netcare requires and supports displaying reports marked as 'Preliminary', 'Final', 'Correction', and 'Cancelled'; workflows for these options are included in this initiative's scope of work.

7. **In the reports, is the space for interpretation comments restrictive?** No. There is unlimited space for entry of both technical and interpretation comments; these sections start on page 1 of each report template, but will automatically flow onto page 2 if required.

8. **All connected labs will now be using the Alberta Set GLI; what is in the Alberta Set GLI?** This set is aligned with the most current CPSA standards and includes Quanjer (GLI) 2012 for Spirometry, Gutierrez (Canada) 2004 for adult lung volumes, Polgar 1971 for children's lung volumes and Stanojevic (GLI) TLCO 2017 for DLCO.

9. **Will the same report templates be used for all vendors' software?** Yes. The actual look may differ slightly between vendor's software, but we are attempting to get as close as possible. The plan is to support all participating labs to report the same values, graphs and metrics (aligned with ATS and CPSA's most current requirements), and ensure that referring physicians can easily find interpretation comments starting on the bottom of the report's first page.

10. **What new values and graphs are included in the standardized provincial reports?** Certain values such as z scores have been added as per CPSA's request to be aligned with ATS recommendations. Graphs, such as for trending, have also been added. Some labs have been using these values and graphs already, while others will begin to use them in the future. It's important to recognize that interpreting physicians may wish to access the lab's raw data, however, these Netcare reports are primarily for referring physicians and to support all clinicians in communication and continuity of care.

11. **What other values and graphs will be added to the reports in the future?** MIP and MEP graphs, ambient conditions chart and Pleth graph have been approved by CPSA for inclusion; the vendor of the current software is troubleshooting to determine how to make these values display accurately. While not mandatory by CPSA, the use of grading scales or binary codes is being explored.

12. **On the reports, how will the lab name and interpreting physician's signature be displayed?** Approved by both Netcare and CPSA, final reports will display each lab's full name, address and phone number while interpreters will be identified with a digital signature - which will show the interpreting physician's name along with a date and time stamp. With the central server solution, it is not currently possible to display labs' logos on the reports, but this option will continue to be explored in future.

13. **How will ABG values be entered into the report?** ABG values would be entered manually in "Off Line Data Entry". There is a report template with the names of the appropriate fields. Users would enter data in the appropriate field and the report would be generated containing the data that has been entered.

14. **How will 6 Minute Walk Distance values be entered into the report?** Test data would be entered manually in "Off line Data Entry", just like for ABG's. There is a report template with the names of the appropriate fields. Users would enter data in the appropriate field (SpO2, HR, etc.) and the report would be generated containing the data that has been entered.

15. **What are the workflow options for physicians to complete their interpretation?** Interpreters may use whatever mode they prefer, and as sanctioned by their lab's Medical Director; this may include the use of dictation, typing within the software, or a copy and paste of pre-written interpretation summaries. An important feature of this initiative is an online option for accessing each type of software, to support interpreting physicians to complete interpretations remotely. Though not necessary to use, this option can save time and travel and can be accessed at the same time as other software used by the lab or interpreting physician.

16. **Why is it not possible for labs to send data as a PDF directly to AHS' server or to Netcare?** This is not a feasible option as (a) each lab would have to work through a solution with Netcare individually, which means each lab would have to wait for a Netcare intake with time, effort, and costs rising significantly and (b) sending a PDF to a server does not meet Netcare's requirement of validating patient identifiable information with client registry prior to sending PDFs to Netcare. There are many benefits to the central server solution for connection; efforts are being made to mitigate any potential risks.

17. **How do interpreting physicians and technicians access older tests or raw data if needed?** Raw data and/or older tests can be accessed in the same fashion as in past; this may include pre-established remote access through another server to the originating software or other processes determined by each lab. Results and trends will be available in Netcare starting from the date that each lab connects to Netcare; no retroactive results will appear in Netcare.

18. **How is privacy secured?** Each vendor's software will be connected to the server (housed behind the AHS firewall) through a Virtual Private Network (VPN). This set-up significantly reduces the vulnerability of the data to be intercepted for malicious purposes. For privacy between users accessing the same server, vendors are being asked to build firewalls and audit functions within their software.

19. **What is the deadline for labs to participate in the central server solution?** The current AHS project team resources are available until the end of 2019 to support interested labs in leveraging the available solution for Vyaire body boxes. Beyond that, the amount and timing of available support will be negotiated between RHSCN and labs, including for other vendors' software.

20. **This initiative has been focused on Vmax body boxes so far; what about other vendors and software?** Current work is for the technical solution to connect labs using Vyaire software to Netcare; once the majority of these labs are connected, the project team will phase in solutions to connect other vendors' software to Netcare. Where possible, attempts will be made to support all software and interested labs.

21. **What happens if new workflows aren't as efficient as former?** Every attempt is being made to optimize efficiencies; the project team will routinely consult with labs to get feedback and monitor progress and also with vendors to understand the various software options as they evolve.

22. **How much will it cost each lab to participate?** For Vyaire software, AHS' IT has negotiated the cost on behalf of all labs, and has absorbed significant costs with the goal of benefiting all interested labs. For labs using Vyaire software, the remaining estimated cost borne by each lab for *each* body box is between $2,900 to approximately $7,000. The minimum cost of $2,900 per body box is for the license required by the vendor. Other costs depend on whether the lab wishes to replace its acquisition station computer, needs to upgrade its software, and/or wants to have reports copied to an EMR; these costs will be negotiated between each lab and its vendor. While not guaranteed for all software solutions, AHS has reserved some funds for the next software solution, and plans to once again negotiate on behalf of all interested labs.

23. **What are the future costs for each lab related to this initiative?** Costs for connection to Netcare are one-time only, payable to each lab's software vendor. Any costs incurred after connection to Netcare will be at the discretion of each lab (most typically for non-Netcare purposes), and will be both negotiated and payable between each lab and its own software or hardware vendor.

24. **Who is responsible for auditing?** Each participating lab is required to perform their own quarterly proactive audits and report and manage any breaches that occur.

25. **Who is responsible for upgrades and updates to software?** For minor updates to software, there is typically no charge from vendors and AHS would implement these at the central server on behalf of all involved labs. When labs decide to invest in software upgrades, it is their responsibility to negotiate and to cover those costs with their vendor – while ensuring they can retain connection to the central server, should they still wish to upload to Netcare.

26. **What can labs expect for server support from AHS?** AHS' IT will conduct software updates, provide sophisticated processes for server backup, maintenance and support as required and as outlined in the Information Management Agreement (IMA) co-signed with each lab. AHS' IT will be responsible for the ongoing costs directly related to the central server. If the server goes down, AHS has automatic emergency protocols for restoring service.

27. **Who will be responsible for maintaining the consistency in and the updates for the report templates?** RHSCN and CPSA will continue to collaborate to update the provincial report templates as required, ensuring that data quality and integrity are maintained throughout.

28. **Who will provide the training for staff and physicians at each lab?** Training for all staff and physicians on the specific application will be the responsibility of each lab and vendor. RHSCN will provide each participating lab with the training materials developed, and AHS' IT department will provide a link for each lab to complete its privacy training.

29. **Once connected to the central server, who will own the clinical data?** As with other diagnostic labs, each facility will continue to own their own patient data – which is governed by each facility's PIA and Accreditation documentation. AHS is a custodian of the data and would also assume responsibility for the security of data in the central server – which is governed by this initiative's PIA and the IMA that will be co-signed by all involved parties. Each lab should review their IMA in detail for more information regarding ownership of the data.

30. **How much support is available for independent labs to get involved in this initiative?** For a limited period of time, the RHSCN has staff on call to engage with labs who wish to explore costs and workflows and/or labs who want to be involved in trouble-shooting or consensus-building. Starting late in 2019, labs will be asked to access what they need through their vendor or through the initiative's website at www.ahs.ca/pfts.

31. **Will referring physicians and clinicians get a notice to look on Netcare for test results?** As with other results posted on Netcare, it is the responsibility of each clinician to initiate a search since Netcare is designed as a one-way portal. Receiving electronic notifications is not in scope and is not a function of Netcare. EMR software sometimes offer this functionality but that would be a discussion between each lab and their EMR Vendor. Once the majority of labs are reporting into Netcare, Alberta Netcare may include a one-time notice in its routine newsletter. However, it is highly recommended that each lab continue to communicate with its referral sources in an effective and timely manner, using whatever means and messages it deems important for safe and consistent patient care. The use of suggested or standardized messaging may perhaps be requested of labs in the future; in the meantime, please consider notifying each referral source for the purposes of acknowledging the referral, the booking and/or completion of testing, and the anticipated turnaround time for results to be available.

32. **What is the impact of Connect Care (Epic) on Netcare and this initiative?** Minimal impact is expected for the next decade, at least. AHS' IT is working on integrating Epic with PFT vendors that are ready; this work is being done in parallel with the PFT to Netcare initiative. The project team is keeping apprised of relevant facets of the evolution in provincial Electronic Medical Records (EMRs) such as Connect Care's Epic software and the Netcare Electronic Health Record (EHR); solutions are being built to be as system agnostic as possible – meaning they can integrate readily with each other and will nimbly adjust as software changes.

33. **How do labs print or save copies of the final interpreted reports?** Labs will decide the best process for them; this may include options such as printing a copy from their testing software, printing a copy from Netcare, paying their software vendor a one-time fee to establish a carbon copy to their EMR, or saving the pdf to the local hard drive and importing it manually to their EMR.