BERENTT

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MESSENGER

News and Information from BERENTT

Regular Service Is Crucial

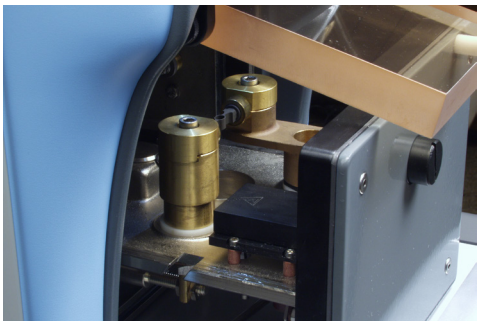
Technegas:
The Importance of Regular Service by Experienced Service Engineers.

"We cannot overemphasise the importance of regular cleaning and general maintenance of your Technegas generator!!!"

Included in this recommendation is paying close attention to the condition of hoses and power leads, the quality of the Argon gas used to generate Technegas and the proper calibration of a Technegas' simmer and burn temperatures.

Studies have shown that even a low level of oxygen contamination in the Argon gas cylinder can lead to the production of pertechnegas. Pertechnegas is a clearance agent, which means it readily crosses from the alveolus into the circulation and may be imaged viz. thyroid imaging. Any thyroid imaging should immediately alert the nuclear medicine technologist to look for potential problems.

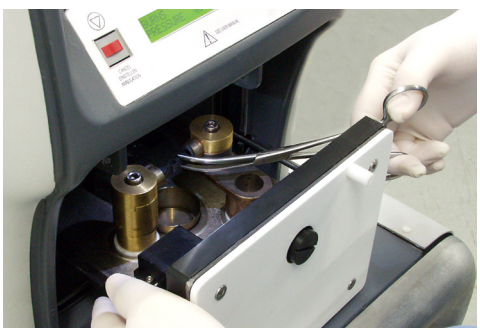
The Technegas generator WILL NOT WARN you of the production of pertechnegas.
In places where Technegas has not been commonly used it is easy to fall into the trap of using contaminated Argon and in some cases using welding-grade Argon which contains other particulates which can be breathed by the patient.



It is observed by Dr Burch, the inventor of Technegas that "machines that are not fully serviced at regular intervals can trap sufficient oxygen in the carbon deposited on the chamber walls, for example, to generate pertechnegas".

For this reason alone, it is imperative that a qualified and properly trained service engineer REGULARLY cleans and services the Technegas generator.

Please, NEVER put your hands into a Technegas generator!! Despite all warnings we are still finding technologists putting "UNGLOVED" hands into the generators to change contacts, crucibles, empty ash trays, etc. While the potential risk is minimal we feel that it is our duty of care to advise AGAINST such practices.



NOTICE:
PRODUCTION OF GROUND-STATE TECHNETIUM

Cleaning, calibrating and servicing the Technegas generator is an important function.

During the Technegas production process ground-state Technetium-99 is produced in addition to Technegas (Technetium-99m). Ground-state Technetium-99 is a beta-emitter which has a half-life of 211,000 years. For all intents and purposes, the quantity produced means that it is perfectly safe for patients undergoing a Ventilation scan.
However, Technetium-99 coats the inside of the Technegas generator and is largely removed when an experienced service engineer performs routine maintenance and service.

Over many years of performing this function it is possible that the service engineer may receive a much higher exposure to ground-state Technetium-99 than a normal patient.
So please, let the professionals handle the cleaning of your Technegas generator and mitigate against the potential for problems. We at Landauer/Berentt understand the complexities of such procedures and stand ready to assist.

continued overleaf -

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WE WARN OUR SERVICE ENGINEERS TO MAKE SURE THEY WEAR LONG GLOVES TO PROTECT THEMSELVES WHEN PERFORMING ROUTINE SERVICE!!

Ground-state Technetium-99 may penetrate into the body through breathing and through the skin and any body part exposed during cleaning, maintenance and service, may expose the engineer to serious consequences.
Technologists should always wear gloves when touching the inside of the Technegas generator. This should occur irrespective of how long it has been since the last time the Technegas generator was used.
I have personally witnessed nuclear medicine technologists changing crucibles and contacts with UN-GLOVED hands. When I have asked technologists about it, they say that the Technegas generator is “cold”.

However, ground-state Technetium-99 is ever-present UNLESS appropriately removed by service engineers.
So, take home messages:

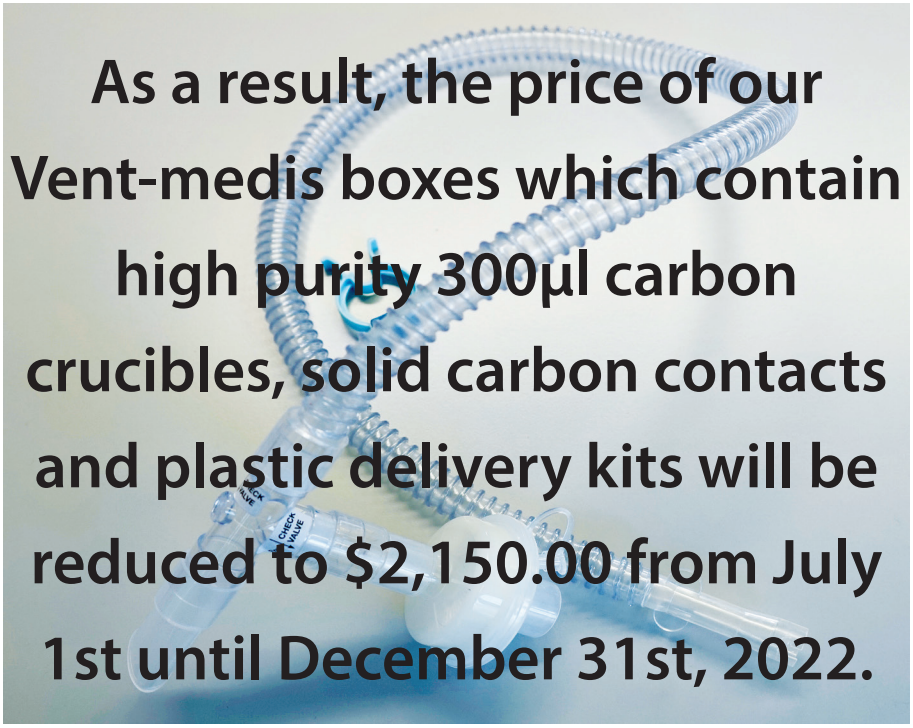
1) NEVER touch the INSIDE of a Technegas generator with ungloved hands;
2) You NEVER know if/how much Pertechnegas has been generated when the machine operates;
3) ONLY fully qualified AND experienced service engineers should clean, service, calibrate and maintain the Technegas generator;
4) It is virtually IMPOSSIBLE to know:
a) How much Technegas has been generated
b) How much Technegas is ACTUALLY delivered to a patient
5) Technologists should always wear gloves when touching the inside of a Technegas generator.

CONTRAST SHORTAGES

Owing to a shortage of a key component in the production of contrast media used in some CT scans, V/P imaging has taken a sudden surge.
It seems that Covid-19 has again impacted our lives as lockdowns in Shanghai, China has resulted in reduced ability to manufacture the contrast materials required to produce the dye.

This global shortage has resulted in many institutions reserving their supplies for urgent scans and patients being placed on long waiting lists.

We at Landauer/Berentt want to try to mitigate the pain of this occurrence.



We hope that this gesture will provide some financial relief and also encourage you to continue to perform V/P studies when the crisis is resolved.

Charles Buttigieg
Managing Director + CEO
Berentt - Medical Technologies

David Rundell
Managing Director
Landauer Australasia

RICK'S HELPFUL HINTS

CLOSE THE BOX

When using the Vent-medis crucibles, it is a good idea to CLOSE the almedis protective box between uses. We have noticed in some nuclear medicine departments that the boxes are left open when not in use. The potential exists for contamination of the crucibles if left open which may result in patients breathing unwanted particulates during the Technegas inhalation process.
So as a general rule CLOSE the box when not in use.

EXTENDING BATTERY LIFE.

In order to optimise the life of the battery in the Technegas generator the following procedure is recommended:

A) Turn the generator ON at the start of the working day
B) Turn the generator OFF at the end of the working day
C) Leave the power OFF on weekends
D) IF THE GENERATOR IS LEFT ON 24/7 THERE IS THE POTENTIAL TO SHORTEN THE BATTERY LIFE THEREBY SHORTENING ITS LIFE CYCLE

AUTHORISED SERVICE

NOTE OF CAUTION:
YOU SHOULD NOT permit unauthorised service technicians to perform upgrades/recall service work/or any other work on the generator WITHOUT first informing your servicing contract provider. We have been in operation for almost 4 years, have approximately 100 happy customers and have NOT failed to repair any Technegas generators throughout that time; parts are not a problem.

If you have a service contract with Landauer/Berentt you should in the first instance inform us of any proposed "mandatory Technegas generator recalls/upgrades" and not allow unauthorised service engineers to tamper with the Technegas generator.
It may be simply coincidence, but following these "mandatory" upgrades, Landauer/Berentt are being called out to return Technegas generators to optimal efficiency.

Secondly, please be aware that we cannot be held responsible to repair any 'manufacturing' defects with the Technegas generators. These are the responsibility of the manufacturer.
Specifically, it appears that each drawer assembly is 'unique' to each Technegas generator and in many instances very loosely fitted to the machine resulting in a wobble, incorrect closure of the door and error messages. This has happened on several occasions and is an obvious manufacturing fault.

The Landauer/Berentt Service Contract covers annual servicing, 24-hour phone assistance, technical training and routine maintenance and repairs.
It is important to note that our service contract certainly does not cover manufacturing faults. Our engineers will evaluate any manufacturing issues as they are found, so you can make the appropriate follow-up with the manufacturer.

The service contract also does not allow recovery from any unauthorised work on the Technegas Generator by non-Landauer/Berentt service engineers.
So, we would please ask you, in the event of a call to upgrade your generator:

1. Get the name and contact details of the service engineer.
2. Note the date of the proposed works.
3. Ask them if they have contacted Landauer/Berentt BEFORE the works are attempted
4. If not, ask them to call Richard Gotch on 0448 010 445
5. Get authorisation from Richard to perform the works.
6. Make sure you get them to per form several test runs following the upgrades to ensure that the generator is still functioning to your expectations
7. If not, get them to make sure that the generator is returned to pre-upgrade functionality.

TONGUE IN THE CONSUMABLE TUBING

Ensure patients do not put their tongue in the consumable's tubing as that may reduce Technegas intake. Believe it or not, this happens with sufficient frequency for us to raise this as an issue.

ALSO WORTH KNOWING

You should take care when delivering Technegas to a patient as quite a bit of 'shine' emanates from the delivery port where you attach the plastic delivery device.

Use of Ethanol:
Ethanol is NOT used to sterilise the crucible. It is simply a 'wetting' agent used to prevent bubble formation in the crucible. Moisten the crucible with ethanol, discard the ethanol, place the crucible in the between the contacts, rotate until you hear a squeaking sound, and top up with pertechnetate. If the crucible dries out during this process repeat. You should NOT place pertechnetate into a dry crucible.

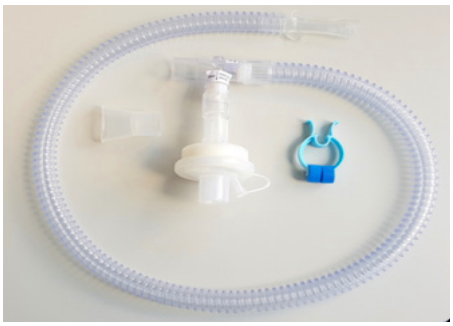
Best Regards
Rick Gotch
GLOBAL TRAINING & SERVICE MANAGER
BERENTT Medical Technology

Vent-Medis Patient Administration Kits (PAKs)

Large 0.3ml highest purity graphite crucible

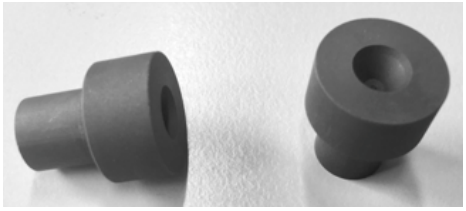
Vent-Medis Kits include the improved high-purity, high-volume carbon crucible with a 0.3ml bowl capacity. This crucible saves time and minimises multiple simmers allowing the use of dilute Tc-99m generator elutions thus reducing operator radiation exposure.

Rugged design smooth-bore patient delivery set



The inhalation breathing unit contains a high efficiency HEPA, exhalation filter, T-piece with robust non-return valve, a robust one meter smooth-bore tubing with 15mm inner diameter and the special generator connection. A rigid mouthpiece and a nose clip complete the set.

High purity and long life graphite contacts



With every Vent-Medis Box you get one pair of high-purity carbon contacts for 50 scintigraphic examinations. The carbon contacts are very robust and fit the Generator specifications with great contact reliability.

Vent-Medis PAKs -

Larger volume crucible equals more efficient use of dilute Tc-99m eluate

High-Efficiency HEPA filter

Time and cost saving

Less radiation through reduced simmers

Improved and more reliable crucible contact

More rugged design

Improved packaging

TGA Certified

Reliability of supply

CE marked

Major price advantage

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