BOC Healthcare

Patient Service Centre Priestley Road Worsley, Manchester M28 2UT

Telephone: 0800 136 603 Facsimile: 0800 169 9989

C Bailey
The Coroners Service
Middlesbrough Town Hall
Albert Road
Middlesbrough
TS1 2QJ

19th January 2015

Dear Ms Bailey,

Re: Sandra Danks

We are in receipt of your letter dated 3 December 2014.

BOC takes patient safety very seriously and has in place robust policies and procedures to ensure the safety of patients using BOC's Oxygen Concentrators. BOC has conducted a full review of both its general policies and procedures in respect of the supply of oxygen concentrators and also a full review of BOC's actions in respect of this specific patient since the initial supply of oxygen in July 2013.

BOC delivers oxygen to home patients as part of its North East NHS contract. BOC has held the contract since 2011 following a public procurement tender process. BOC follows to the letter the requirements of such contract in terms of the specification given by North East NHS for the equipment and services provided and which are determined by the primary caregivers. As part of an oxygen concentrator installation - for long term oxygen therapy - the contract stipulates that BOC will deliver and train the patient on the use of a back-up oxygen cylinder in case of equipment malfunction or power failure. The back-up oxygen cylinder lasts 8 hours at the patient's prescribed flow rate and BOC will attend to the equipment reported fault within that period of time.

Following receipt of an order from this patient's respiratory clinician on 26 July 2013, BOC's Patient Service Representative installed an oxygen concentrator at this patient's home on 27 July 2014. In line with BOC's contract with North East NHS and BOC's policies and procedures, BOC also supplied a back-up oxygen cylinder and delivered training to this patient on all aspects of the oxygen equipment delivered. Please find attached BOC's oxygen concentrator equipment guide and BOC's home oxygen cylinders equipment guide. The training provided to this patient, and all

other patients supplied with an oxygen concentrator, covers the content of these equipment guides and copies of the equipment guides were supplied to this patient for further reference.

During the installation of an oxygen concentrator, it is emphasised that the back-up oxygen cylinder is for emergency use only in case of malfunction of the primary source of oxygen for long term oxygen therapy or power failure at the property and should not be used for any other use. Patients are advised to revert to the back-up oxygen cylinder in the event of a problem with the oxygen concentrator. This is further set out in the oxygen concentrator equipment guide at page 9 and the home oxygen cylinder equipment guide at page 11.

Patients are also provided with BOC's Patient Service Centre emergency contact details. The telephone number is a freephone number and is open 24 hours per day, every day of the year. The emergency telephone number is printed both within the equipment guides, and is also clearly visible on the oxygen concentrators themselves.

After installation of the oxygen concentrator by BOC, over the ensuing 18 months, several visits to this patient's home were made to cover such events as replenishment of cylinders, risk assessments and attendance on faults reported. BOC records all calls made to our Patients Service Centre and all activities are logged for full traceability and for audit purposes. Please find below our verbatim record of calls and activity relevant to this patient.

- 26.7.13 First next day HOOF (Home Oxygen Order Form) received (daughter had problems understanding advisor, repeating questions that were being asked) ward contacted Husband agreed to stay in for delivery
- 27.7.13 Installation and training completed 1x machine 1xDF (back up cylinder) 4xDD (ambulatory cylinder). Equipment instruction material left with patient.
- 30.7.13 Respiratory nurse called checking current prescription
- 01.08.13 Fixed tubing installation completed to reduce risk of trips and falls
- 09.08.13 BOC tried to contact patient to do follow up call but no reply
- 21.08.13 Respiratory nurse called checking current prescription
- 22.08.13 New HOOF sent for increase in HPD Hour per Minute, new prescription, called patient and advised, no visit required, fax back sent
- 22.10.13 Machine serviced and RA (risk assessment) completed
- 14.11.13 Visit for Ambulatory cylinders replenishment
- 10.1.14 Visit for Ambulatory cylinders replenishment
- 24.1.14 Husband called to advise oxygen appeared to be coming through cannula too quickly and was louder than usual, PSR (patient service representative) attended same day

- 06.05.14 Machine serviced and Risk Assessment completed with portable replenishment
- 20.05.14 Husband advised whilst changing mattress he had caught the main tubing to switch for tap system, no flow, went onto back up cylinder and PSR attended within 4hrs
- 22.05.14 Visit for Ambulatory cylinders replenishment
- 03.08.14 Husband called and advised machine was loud, stopped working, ball at zero tried to troubleshoot on call but unsuccessful, went onto back up cylinder, PSR attended within 4hrs
- 09.11.14 Machine serviced and Risk Assessment completed
- 28.11.14 Respiratory nurse called checking current prescription
- 28.11.14 Husband advised patient deceased 27.11.14 call plan and charges stopped, collection of equipment agreed for 1.12.14

In dealing with this patient, BOC has followed its robust processes and procedures, and is in compliance with the terms of its contract with North East NHS. The oxygen equipment was checked at the required regular intervals and all necessary risk assessments were carried out in line with BOC's contractual obligations. In the particular instance of this patient and the power failure, BOC was not contacted by the patient or a family member at the time of the power failure - had BOC been contacted, the advice given would have been for this patient to use the back-up oxygen cylinder supplied by BOC until power was reconnected. BOC would then have made a visit to replenish the back-up oxygen cylinder.

BOC is unsure as to the reason why this patient did not switch to her back-up oxygen cylinder for her oxygen supply when the power cut was detected, nor why she did not call for assistance. All the oxygen equipment removed from the property following the death of this patient was checked and found to be in perfect working order, including the concentrator, the back-up oxygen cylinders as well as all the ambulatory cylinders.

Following BOC's comprehensive review of its policies and procedures in respect of the supply of oxygen concentrators and BOC's actions in respect of the current incident, BOC sees no reason at present to take any further action. BOC shall however continue to monitor its current procedures and make any adjustments and improvements as necessary.

If you have any further queries or comments, BOC would be happy to address these – please contact me on

Yours sincerely,

Business Manager – Homecare, BOC Healthcare. For and on behalf of BOC Limited