

Question sent out to all critical care networks on 29.1.19:

One of our consultants believes breaking the ventilator circuit every 24hrs to replace the HME in situ is more detrimental than not doing so. Does anywhere else keep them in the circuit > 24hrs.

If so what brand are they that you use and how long are they actually licensed for?

Do you avoid them altogether and just use wet circuits?

Summary of Responses Received

Date	Response	Contact	Trust
4.2.19	Only use wet circuits	Maureen Kermack	Luton & Dunstable
2.2.19	Use HMEs but change every 24hrs	Helen Williams	Wrexham Betsi Cadwaladr University Health Board
1.2.19	Nearly all of our patients stay in the ICU for longer than 48 hours and so will be nursed on ventilators with wet circuits. For the patients that are just for overnight ventilation or less than 48 hours we do use the Yellow Intersurgical HME's and change them every 24 hours (which is usually not a problems with regards to losing Peep and PS.	Sally Scott Matron – Critical Care ICU Stoke Mandeville and Wycombe General Hospital	Buckinghamshire NHS Trust
31.1.19	In response to your question regarding risk benefit of changing HME filters sent Via the Critical Care Network..... We use them and change them every 24 hours as per manufacturers guidance on all patients on our ICU. We have found that if the filters are left longer they do accumulate water and then impact on CO2 clearance and work of breathing. I am not aware of any that are designed for more than 24 hour use. I hope this is some help to you.	Michele Sierpinski	Royal Lancaster Infirmary
30.1.19	We change ours every 24hours.	Ana Coelho Matron	Wexham Park Slough Frimley health NHS Foundation Trust
30.1.19	NICU only use humidified circuits which stay insitu for 14 days. I haven't used a HME for over 13 years. I'm not sure if this is the Oxford way. When I worked in London we used HME's but that was 13 years	Mary Sunderland NICU Clinical Nurse Manager	Oxford University NHS Trust

	<p>ago. I do remember having to risk access the benefit of changing HME's on patients with high oxygen requirements.</p> <p>Might be worth contacting Fisher Paykal , that's the company that provides the humidifiers</p> <p>I'm sure there is lots of evidence pro humidification.</p>		
30.1.19	<p>On a dry circuit we use an HME filter and a bacterial filter and we do changes these every 24hrs and we do this by clamping the ET tube for a few seconds. On a wet circuit we use a bacterial filter and change this in the same way. If the filters look wet we change them more frequently.</p>	Jennifer Southgate Clinical Educator	John Paget ICU
29.1.19	<p>If there is no evidence of water condensing in the filter which would obviously increase resistance then we would keep in for 48hrs. if the pt is vented for over that we tend to go to a wet circuit anyway. We have a very low rate of breaking the circuits, we don't change circuits at all unless it's not functioning or visibly soiled or at 30 days. The 30 days is very arbitrary and was decided on a whim just so we did change it at some point.</p> <p>The manufacturers do not test for infection just mechanical failure so it is done at clinical risk but it supports GPICS and older infection control guidance i.e. EPIC. We've done it since 2004 without a problem and very low VAP rates.</p>	Jayne Adderley Advanced Nurse Practitioner	Milton Keynes University Hospital
29.1.19	<p>We would use HME's for transfers but even for short overnight ventilation we use wet circuits.</p>	Amanda Griffiths ICU Sister Service Improvement Lead	Royal Liverpool Hospital