#### Long-term ventilation: Lead clinician (ongoing care) questionnaire

#### A. INTRODUCTION

#### What is this study about?

The aim of this study is to identify remediable factors in the care of patients who are receiving, or have received, long-term ventilation (LTV) before their 25th Birthday.

#### Inclusions:

Data has been collected on patients up to their 25th birthday who were receiving, or who had received, long-term ventilation between 1st April 2016 – 31st March 2018.

Long-Term Ventilation is defined as 'ventilation provided every day for 3 months (invasive and non-invasive) where the intention is/was to maintain the patient at home on continued ventilator support (not home oxygen)'

#### Who should complete this questionnaire?

This form should be completed by a member of the clinical team who leads the long term care of the patient; this may be a clinician, physiotherapist or nurse. This form should be completed in relation to the status of the patient/care received as of the 31/03/2018. If the patient was discharged from the LTV service prior to the 31/03/2018, please complete this form in relation to their last appointment/attendance prior to discharge.

### Questions or help?

A list of definitions can be found here: https://www.ncepod.org.uk/ltv.html If you have any queries about this study or this questionnaire, please contact: ltv@ncepod.org.uk or telephone 020 7251 9060

#### **CPD** accreditation:

Consultants who complete NCEPOD questionnaires make a valuable contribution to the investigation of patient care. Completion of questionnaires also provides an opportunity for consultants to review their clinical management and undertake a period of personal reflection. These activities have a continuing medical and professional development value for individual consultants. Consequently, NCEPOD recommends that consultants who complete NCEPOD questionnaires keep a record of this activity which can be included as evidence of internal/self directed Continuous Professional Development in their appraisal portfolio.

This study was commissioned by The Healthcare Quality Improvement Partnership (HQIP) as part of the Clinical Outcome Review Programme into Child Health.

#### B. LEAD CLINICIAN/TEAM DETAILS

O Yes	O No	Unknown
	provide details of the led, and return this qu	HOSPITAL/SITE where the patient's usual lead LTV uestionnaire to NCEPOD: (Please do not supply
If NO, please p		TRUST where the patient's usual lead LTV clinician is e to NCEPOD: (Please do not supply clinician names )

If you are not the lead clinician or part of the team who leads the long term care of the patient, please return this questionnaire to your Local Reporter (hand your assignment back) who will notify NCEPOD

# C. CLINICIAN DETAILS AND STRUCTURED COMMENTARY

a. Profe	essional grade
b. Grade	e:
c. Speci	ialty
comn is cor	se use the box below to provide a brief summary of this case, adding any additional nents or information you feel relevant. You should be assured that this information of idential. NCEPOD attaches great importance to this summary. Please give as much mation as possible about the care of this patient.

# D. RECENT HOSPITAL ADMISSION DETAILS

1a.	Did the patient	have an admission to thi	s hospital between the 01/04/2016 - 31/03/2018?
	O Yes	O No	○ Unknown
1b.	If answered "Yes If YES, please sp 31/03/2018:		est recent admission between the 01/04/2016 -
1c.	If answered "Yes If YES, please sp 31/03/2018:		est recent admission between the 01/04/2016 -
1d.	If answered "Yes		dertaken during this admission?
	O Yes	O No	O Unknown
1e.	If answered "Yes		tion received prior to admission?
	Invasive	Non-invasive	∪ Unknown

# E. PATIENT SPECIFIC DETAILS

a. Was the p	atient und	er the age o	f two on 31	L/03/2018?	
O Yes		O No		O Unknown	
b. If answere If NO, plea			the patient	on 31/03/2018:	
			Years	Unknown	
c. If answere			the patien	t on 31/03/2018:	
			Months	Unknown	
a. Was the p	atient und	er the age o	f two wher	n LTV began?	
O Yes		O No		O Unknown	
o. If answere If NO, plea			the patient	when LTV began:	
			Years	Unknown	
c. If answere			the patien	t when LTV began:	
			Months	Unknown	
o. How long	had the pa	tient been o	Years	otal at 31/03/2018?  ☐ Unknown	
a. Please spe	ecify the ty	pe of LTV re	eceived on	the 31/03/2018:	
O Invasive	2	O Non-inv	asive	O Unknown	Other
	ed "Other" please spe	to [4a] then cify:	:		
c. What was Please see		of dependen	cy on LTV a	as of the 31/03/2018	?
O High (Le	evel 1)	O Severe	(Level 2)	O Priority (Level 3)	O Unknown
d. What was	the numbe	er of hours o	f ventilato	r-free breathing per	day as of the 31/03/2018?
				Unknown	
5. Gender					
Male		Female		O Unknown	
6. Weight at	the time o	f LTV initiat	ion?		
<b>J</b>			. 1	□ Unknown	
			kg	Unknown	

# F. PATIENT CONDITION PRIOR TO LTV

<ol> <li>What were the main underlying system fail (Please tick all that apply)</li> </ol>	ure (s) which led to this patient needing LTV?
<ul><li>☐ Respiratory muscle weakness</li><li>☐ Upper airway obstruction</li><li>☐ Spinal cord injury</li><li>☐ Neurodisability</li></ul>	<ul><li>Central drive</li><li>Skeletal deformity e.g. Scoliosis</li><li>Obesity hypoventilation</li></ul>
Please specify any additional options here	
2. When LTV was commenced was it:	
<ul><li>As a bridge to definitive therapy or in anticip</li><li>As "Destination" therapy (with no immediate</li><li>Unknown</li></ul>	
If not listed above, please specify here	

# G. DECISION TO COMMENCE LTV 1. Was LTV commenced between 1st April 2016 - 31st March 2018? O No Yes Unknown Where LTV was commenced during the 2 year study period: It is understood that the decision to provide LTV to a patient is a process and that the timing of specific decisions and events may be difficult to provide accurately in retrospect. Patients may be ventilated for some period before a formal decision to provide LTV is made or there may be evidence of deteriorating respiratory function. We would ask that clinicians provide information with as much accuracy as possible and refer to clinical records from the time Long-Term Ventilation is defined as 'ventilation provided every day for 3 months (invasive and noninvasive) where the intention is/was to maintain the patient at home on continued ventilatory support (not home oxygen).' 2. If answered "Yes" to [1] then: Is there a clear record of how and when the decision to commence LTV was made? O No Unknown 3. If answered "Yes" to [1] then: How was the decision made to commence LTV? 4a. If answered "Yes" to [1] then: Was a multi-professional meeting held to discuss the initiation of LTV? Yes Unknown ( No 4b. If answered "Yes" to [1] then: Was the patients GP informed of the LTV decision prior to the patient leaving this unit? Unknown Yes O No 5. If answered "Yes" to [1] then: Were the implications of long-term ventilation at home discussed with the parent/carers? Yes O No Unknown

Have there been occasions during your care of this patient when there have been significant differences of opinion between clinicians about whether LTV was an

Unknown

6a. If answered "Yes" to [1] then:

Yes

appropriate treatment modality?

( No

Page	7	οf	15	

	to [6a] and "Yes" to [1] these resolved? (Please tie	
_	Clinical ethics committee iplinary discussion econd opinion	<ul><li>External Mediation</li><li>Informal multidisciplinary discussion</li><li>Remain unresolved</li></ul>
Please specify any a	dditional options here	
significant differer about whether LT\	/ was the appropriate tre	•
significant differei about whether LT\ () Yes	/ was the appropriate tre	clinicians and the parent carer and/or patient atment modality?  Unknown
significant differer about whether LT\ () Yes If answered "Yes"	/ was the appropriate tre  No to [7a] and "Yes" to [1] the second	clinicians and the parent carer and/or patient atment modality?  Unknown
significant differei about whether LT\ () Yes	/ was the appropriate tre  No to [7a] and "Yes" to [1] the second	clinicians and the parent carer and/or patient atment modality?  Unknown
significant differer about whether LT\ O Yes If answered "Yes"	/ was the appropriate tre  No to [7a] and "Yes" to [1] the second	clinicians and the parent carer and/or patient atment modality?  Unknown
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significant different about whether LTV Yes f answered "Yes" f YES, please give	/ was the appropriate tre  O No to [7a] and "Yes" to [1] the details:	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:
significant different about whether LTN  Yes  f answered "Yes"  f YES, please give	/ was the appropriate tre  No to [7a] and "Yes" to [1] the second	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:
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f answered "Yes" f YES, please give  f answered "Yes" f YES, please give  f answered "Yes" f YES, how were t  Involvement of a  External Mediation	was the appropriate tre  No to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] these resolved? (Please tiese)	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:  hen: ck all that apply)
if answered "Yes" If YES, please give If YES, how were t Involvement of a External Mediation External Mediation	was the appropriate tre  No to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] the details to [7a] and "Yes" to [1] the details to [7a] and "Yes" to [1] the details to [7a] and "Yes" to [7a] the details to [7a] the details to [7a] and "Yes" to [7a] the details to	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:  hen: ck all that apply)
f answered "Yes" f YES, please give  f answered "Yes" f YES, please give  f YES, how were t  Involvement of a  External Mediation  External Mediation	was the appropriate tre  No  to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] these resolved? (Please tiese on point of the control of the co	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:  hen: ck all that apply)
f answered "Yes" f YES, please give  f answered "Yes" f YES, please give  Involvement of a External Mediatio External Mediatio Informal multidis Within hospital s Remain unresolv	was the appropriate tre  No  to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] the details:  Clinical ethics committee on on Formal multidisciplinary discussion econd opinion	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:  hen: ck all that apply)
f answered "Yes" f YES, please give  f answered "Yes" f YES, please give  f YES, how were t  Involvement of a  External Mediatio  Informal multidis  Within hospital s	was the appropriate tre  No  to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] the details:  Clinical ethics committee on on Formal multidisciplinary discussion econd opinion	clinicians and the parent carer and/or patient atment modality?  O Unknown hen:  hen: ck all that apply)
significant different about whether LTN  Yes  If answered "Yes"  If YES, please give  If YES, how were t  Involvement of a  External Mediatio  External Mediatio  Informal multidis  Within hospital s  Remain unresolv  Unknown	was the appropriate tre  No  to [7a] and "Yes" to [1] the details:  to [7a] and "Yes" to [1] the details:  Clinical ethics committee on on Formal multidisciplinary discussion econd opinion	clinicians and the parent carer and/or patien atment modality?  Unknown hen:  hen: ck all that apply)

	lf answered "Yes" to Prior to initiation had	[1] then: I the need for LTV been	anticipated?	
(	○ Yes	O No	Unknown	
		[1] and "Yes" to [8a] th original planned type o		
(	Invasive	Non-invasive	Unknown	
ANT	FICIPATED LEVEL OF	DEPENDENCY ON LTV		
	If answered "Yes" to At the time of initiati Please see definitions	[1] then: on, what was the antici	pated level of depend	ency on LTV?
(	High (Level 1)	O Severe (Level 2)	O Priority (Level 3)	Unknown
	If answered "Yes" to At the time of initiati breathing per day?	[1] then: on, what was the antici	pated number of hour	s of ventilator free
		Hours	Unknown	
	If answered "Yes" to Did this level of depe	[1] then: indency change during	the process of initiatir	ng LTV?
(	○ Yes	O No	O Unknown	

# H. EQUIPMENT

1.	. Which of the following residence? (Please tick		able to the patient in their usual place of
	☐ Backup (second) vent☐ ☐ Ventilator battery pac		
	Oxygen saturation mo		
	Hand-held saturation		
	Self inflating bag		
	Suction equipment		
	Humidification equipm		
	Carbon dioxide monito		2011/6
	☐ Access to a replacement ☐ Cough assist	ant ventilator within 24 r	lours
	☐ Tracheostomy safety I	box	
	Oxygen supply		
	☐ Nebuliser		
	None		
	☐ Unknown		
	Please specify any additio	nal options here	
	, , ,	·	
2a.	. What ventilator was ch Please specify make & mo		
2b.			or for all patients on long-term ventilation?
	•	O No	O Unknown
2c.	If answered "No" to [2k If NO please give reaso		erent models
	ii ito picase give rease		sient modelsi
3a.	. Was a ventilator servic	e contract in place fo	r this patient?
	O Yes	O No	O Unknown

b. Do you know t	he date of the last ventilat	or service?			
O Yes					
c. If answered "Y What was the	es" to [3b] then: date of the last ventilator s	service?			
a. Were there an	y known equipment issues	?			
O Yes	O No	O Unknown			
b. If answered "Y If YES, please					

# I. COMMUNITY CARE ARRANGEMENTS

□ Tracheostomy specialist □ Physiotherapist □ Occupational therapist □ Speech & language therapist □ Nutritional support/dietetics □ Unknown □ None Please specify any additional options here I. Was there any failure of community care provision/breakdown of arrangements in the previous three months? ○ Yes ○ No ○ Unknown	. Who was respon	nsible for care provis	
Family/parent carers   Self care   Unknown	_	althcare staff (NHS)	
No care provision	_		
Please specify any additional options here	_ ,		
2. Which of the following did the patient have access (in the community) to?  Tracheostomy specialist Physiotherapist Occupational therapist Speech & language therapist Nutritional support/dietetics Unknown  None  Please specify any additional options here  A. Was there any failure of community care provision/breakdown of arrangements in the previous three months?  Yes No Unknown  D. If answered "Yes" to [3a] then:	☐ No care provis	ion	Unknown
Speech & language therapist Nutritional support/dietetics Unknown None  Please specify any additional options here  a. Was there any failure of community care provision/breakdown of arrangements in the previous three months?  Yes No Unknown  b. If answered "Yes" to [3a] then:	Please specify any	/ additional options her	e
Speech & language therapist Nutritional support/dietetics Unknown None  Please specify any additional options here  a. Was there any failure of community care provision/breakdown of arrangements in the previous three months?  Yes No Unknown  b. If answered "Yes" to [3a] then:	2. Which of the fol	lowing did the patie	nt have access (in the community) to?
a. Was there any failure of community care provision/breakdown of arrangements in the previous three months?  O Yes O No O Unknown  D. If answered "Yes" to [3a] then:	Speech & lang		
previous three months?  O Yes O No O Unknown  D. If answered "Yes" to [3a] then:			
Yes O No O Unknown  b. If answered "Yes" to [3a] then:	Please specify any	y additional options her	e
b. If answered "Yes" to [3a] then:	a. Was there any f	ailure of community	
	a. Was there any f	ailure of community	care provision/breakdown of arrangements in the
	a. Was there any f	ailure of community	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the
	a. Was there any for previous three no Yes	ailure of community months?  No s" to [3a] then:	care provision/breakdown of arrangements in the

### J. OUTPATIENT REVIEWS

We are aware that models of care vary, i.e. outreach services/satellite services/home reviews. Please answer the following questions in relation to the last routine review (non-emergency)

☐ Clinical assessment       ☐ Blood gas analysis       ☐ Overnight oximetry         ☐ Overnight polysomnography       ☐ Pulmonary function testing       ☐ Care plan review         ☐ Ventilator data       ☐ None       ☐ Unknown	Nhich of the following assess	ments were made at this rev	iew
Discourse of the same of the s	Overnight polysomnography	Pulmonary function testing	Care plan review
Please specify any additional options nere	Please specify any additional opt	ions here	

# K. TRANSITION

1. As of the 1st April 2016, was this patient aged 14 or older?						
O Yes	O No	O Unknown				
2a. If answered "Y Were/have pla		sition this patient from paediatric to adult services?				
O Yes	O No	O Unknown				
	answered "Yes" to [1] and "Yes" to [2a] then: YES, was/has a lead clinician for LTV care been clearly identified?					
O Yes	O No	○ Unknown				
	f answered "Yes" to [1] then: Vas there an MDT meeting where a transition plan was agreed?					
O Yes	O No	O Unknown				
	a. If answered "Yes" to [1] then: Was the patient reviewed in a joint paediatric transition clinic?					
O Yes	○ No	O Unknown				
4b. If answered "Yes" to [1] and "No" to [4a] then: If NO, why not?						
■ No transition	■ No transition clinic					
Please specify a	Please specify any additional options here					
5a. If answered "Y Did the patien March 2018?	liatric to adult care between the 1st April 2016 - 31st					
O Yes	○ No	○ Unknown				
	$\gamma$ es" to [1] and "Yes" to $\gamma$ problems arise?	o [5a] then:				
O Yes	O No	○ Unknown				
5c. If answered "Yes" to [1] and "Yes" to [5a] and "Yes" to [5b] then: If YES, please give details:						

# L. OVERALL CARE

La. In retrospect, between the 1st April 2016 - 31st March 2018, was there any aspect of the long-term LTV care that could have been improved?					
O Yes	O No	O Unknown			
b. If answered "Yes" to [1a] then: If YES, please give further details:					

Many thanks for taking the time to complete this questionnaire