

Journal of Cystic Fibrosis 13 (2014) S23 - S42



Review



European Cystic Fibrosis Society Standards of Care: Best Practice guidelines

Alan R. Smyth ^{a,*}, Scott C. Bell ^{b,c}, Snezana Bojcin ^{d,v}, Mandy Bryon ^e, Alistair Duff ^f, Patrick Flume ^g, Nataliya Kashirskaya ^h, Anne Munck ^{i,j}, Felix Ratjen ^{k,l}, Sarah Jane Schwarzenberg ^m, Isabelle Sermet-Gaudelus ^{n,o,p}, Kevin W. Southern ^q, Giovanni Taccetti ^{r,s}, Gerald Ullrich ^t, Sue Wolfe ^u

```
<sup>a</sup> Division of Child Health, Obstetrics & Gynaecology (COG), School of Medicine, University of Nottingham, UK
                                    b Department of Thoracic Medicine, The Prince Charles Hospital, Australia
                                      Oueensland Children's Medical Research Institute, Brisbane, Australia
                                                        <sup>d</sup> Cystic Fibrosis Europe, Denmark
                                 <sup>e</sup> Cystic Fibrosis Unit, Great Ormond Street Hospital for Children, London, UK
                       f Regional Paediatric CF Unit, The Leeds Children's Hospital, Belmont Grove, Leeds LS2 9NS, UK
                                          g Medical University of South Carolina, Charleston, SC, USA
                         <sup>h</sup> Department of Cystic Fibrosis, Research Centre for Medical Genetics, RAMS, Moscow, Russia
     i Assistance publique-Hôpitaux de Paris, Hôpital Robert Debré, Paediatric Gastroenterology and Respiratory Department, CF Centre,
                                                     Université Paris 7, 75019, Paris, France
                     j Association française pour le dépistage et la prévention des handicaps de l'enfant (AFDPHE), France
         <sup>k</sup> Division of Respiratory Medicine, Department of Paediatrics, The Hospital for Sick Children, University of Toronto, Canada
           <sup>1</sup> Physiology and Experimental Medicine, Research Institute, The Hospital for Sick Children, University of Toronto, Canada
     m Pediatric Gastroenterology, Hepatology, and Nutrition, University of Minnesota, Amplatz Children's Hospital, Minneapolis, MN, USA
                                                             <sup>n</sup> INSERM U1151, France
                                                   ° Université René Descartes Paris 5, France
P Unité fonctionnelle de Mucoviscidose, Service de Pneumo-Pédiatrie, Hôpital Necker-Enfants Malades, 149 rue de Sèvres, 75743, Paris, France
                                  <sup>q</sup> Department of Women's and Children's Health, University of Liverpool, UK
                         <sup>r</sup> Institute of Child Health, Alder Hey Children's Hospital, Eaton Road, Liverpool L12 2AP, UK
            s Cystic Fibrosis Centre, Department of Paediatric Medicine, Anna Meyer Children's University Hospital, Florence, Italy
                                                     <sup>t</sup> Reutzstr. 1, 19055, Schwerin, Germany
         <sup>u</sup> Paediatric Cystic Fibrosis, Regional Paediatric CF Unit, The Leeds Children's Hospital, Belmont Grove, Leeds LS2 9NS, UK
                      Macedonian Cystic Fibrosis Association, Misko Mihajlovski 15, 1000 Skopje, Republic of Macedonia
```

Abstract

Specialised CF care has led to a dramatic improvement in survival in CF: in the last four decades, well above what was seen in the general population over the same period. With the implementation of newborn screening in many European countries, centres are increasingly caring for a cohort of patients who have minimal lung disease at diagnosis and therefore have the potential to enjoy an excellent quality of life and an even greater life expectancy than was seen previously. To allow high quality care to be delivered throughout Europe, a landmark document was published in 2005 that sets standards of care. Our current document builds on this work, setting standards for best practice in key aspects of CF care. The objective of our document is to give a broad overview of the standards expected for screening, diagnosis, pre-emptive treatment of lung disease, nutrition, complications, transplant/end of life care and psychological support. For comprehensive details of clinical care of CF, references to the most up to date European Consensus Statements, Guidelines or Position Papers are provided in Table 1. We hope that this best practice document will be useful to clinical teams both in countries where CF care is developing and those with established CF centres.

© 2014 European Cystic Fibrosis Society. Published by Elsevier B.V. Open access under CC BY-NC-ND license.

Keywords: Cystic fibrosis; Standards of care; Multidisciplinary management

^{*} Corresponding author.

E-mail address: Alan.Smyth@nottingham.ac.uk (A.R. Smyth).

Contents

1.	Newb	porn screening and access to specialist care from early in life	
	1.1.	What population characteristics validate screening newborn infants for cystic fibrosis?	
	1.2.	What health and social resources are minimally acceptable for newborn screening to be a valid undertaking?	
	1.3.	What is an acceptable number of repeat tests required for inadequate dried blood samples for every 1000 infants screened?	
	1.4.	What is an acceptable number of false positive NBS results (infants referred for clinical assessment and sweat testing)?	
	1.5.	What is an acceptable number of false negative NBS results? These are infants with a negative NBS test that are subsequently	y
		diagnosed with CF (a delayed diagnosis)	S27
	1.6.	What is the maximum acceptable delay between a sweat test being undertaken and the result given to the family?	
	1.7.	What is the maximum acceptable age of an infant on the day they are first reviewed by a CF specialist team following a diagram.	
		of CF after NBS?	
	1.8.	What is the minimum acceptable information for families of an infant recognised to be a carrier of a CF causing CFTR mutat	
		after NBS?	
	1.9.	What are the minimum acceptable standards for reporting a CF diagnosis following NBS to the family?	
	1.10.	What are the minimal acceptable standards for the recognition and management of infants with an equivocal diagnosis	~
		following NBS?	S2.7
2.	Diagr	nosis	
	2.1.	What are the minimal requirements to undertake the diagnosis for CF? [5,6]	
	2.2.	What are the diagnostic criteria for CF? [5–7]	
	2.3.	What are the minimal standards for laboratories performing sweat tests?	
	2.4.	What are the diagnostic standards of a sweat test?	
	2.5.	What are the minimal standards for a laboratory performing mutation analysis for CFTR?	
	2.6.	What is a CF causing mutation?	
	2.7.	What are the minimal acceptable standards of care for reporting a diagnosis of CF to a symptomatic patient?	
	2.7.		
			529
	2.9.	What are the minimal standards of care and follow-up for patients with symptoms suggestive of CF and intermediate sweat	G20
	2.10	chloride values?[5,6]	
2	2.10.	Should a patient with equivocal diagnosis have CFTR bioassay tests (nasal potential difference, intestinal current measurement)?	
3.		ention of progression of lung disease by ensuring all patients have access to therapies of proven effectiveness	
	3.1.	Should initial or new bacterial infection with <i>Pseudomonas aeruginosa</i> be treated?	
	3.2.	How should chronic bacterial infection with <i>Pseudomonas aeruginosa</i> be treated?	
	3.3.	Is chronic maintenance therapy indicated to treat other bacteria?	
	3.4.	Is prophylactic therapy indicated to treat bacteria?	
	3.5.	Is physiotherapy an essential component of chronic maintenance therapy and is any form of airway clearance superior to others?	
	3.6.	What are important components of treating patients during episodes of clinical deterioration?	
	3.7.	What are the recommended chronic maintenance therapies to maintain lung health?	
		3.7.1. Mucolytics	
		3.7.2. Hydrator therapy	
		3.7.3. Antibiotic therapy	
		3.7.4. Macrolides	
	3.8.	Is airway inflammation a target of chronic maintenance therapy and how should it be treated?	
	3.9.	CFTR modulator therapy — which treatments address the underlying defect in CF?	S31
	3.10.	How should fungal infections and severe/recurrent Allergic Bronchopulmonary Aspergillosis (ABPA) be treated?	S31
	3.11.	How should we monitor lung disease?	S31
4.	Optin	nal nutrition and management of metabolic complications of cystic fibrosis	S32
	4.1.	What are the goals for nutritional status in patients with CF?	S32
	4.2.	How do we monitor nutritional status in routine care?	S32
	4.3.	How do we determine exocrine pancreatic insufficiency (EPI) and adequate pancreatic enzyme replacement?	S32
	4.4.	What are the main strategies to providing preventive nutritional care?	
	4.5.	What factors should be evaluated in patients with poor growth?	
	4.6.	What are the options for interventional nutritional care?	
	4.7.	When and how do we screen for diabetes mellitus?	
	4.8.	What is the current management of CFRD?	
	4.9.	Should patients be screened for CF bone disease and if so, how and which factors are involved in the prevention of reduced	555
	1.5.	bone mineral density?	S33
	4.10.	What is the current management of reduced bone mineral density?	
5.		ment of the complications of cystic fibrosis in a timely and effective way	
J.	5.1.	Pulmonary complications	
	J.1.	5.1.1. What is the best way to manage pneumothorax in patients with CF?	
		5.1.2. What is the best way to manage pneumothorax in patients with CF?	
		5.1.2. What is the best way to manage respiratory failure in patients with CF?	
		5.1.5. What is the test way to manage respiratory familie in patients with Cr?	333

Download English Version:

https://daneshyari.com/en/article/6240945

Download Persian Version:

https://daneshyari.com/article/6240945

<u>Daneshyari.com</u>