

6.12 A Tool for the Assessment of Adherence to International Guidelines in the Routine Monitoring of Paediatric Patients with Cystic Fibrosis

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Cystic Fibrosis (CF) requires extensive routine monitoring, further complicated in paediatric populations by differing age-related requirements. The purpose of this study was to assimilate necessary investigations and clinical assessments into a single score. A scoring tool was devised following review of National Institute for Health and Care Excellence, European Cystic Fibrosis Society and Cystic Fibrosis Foundation guidelines. (Table 1) Comparison between the years 2019 and 2020, in the context of Covid-19 restrictions, was used to assess the ability of the scoring tool to reflect changes in clinical practice. A retrospective chart review was conducted of paediatric patients with CF attending Cork University Hospital from 2019-2020. Analysis was conducted in SPSS v28 using Chi Square and Mann Whitney U Tests. The proportion of patients with a score of 100% was 20.21% in 2019 and 2.27% in 2020, a decrease of 89%. ($p < 0.005$) The median score was 71.43% (IQR 54.17%-87.5%) in 2019 and 42.86% (IQR 25.0%-56.75%) in 2020, a decrease of 40%. ($p < 0.005$) This tool illustrates an ability to concisely summarise overall monitoring and quantify the impact of alterations in service provision. Future use would allow for comparison between centres and assessment of quality improvement initiatives.

Table 1(6.12) – Scoring Tool		
Score = (Total Conducted / Total Applicable) * 100		
	Conducted +1 if:	Applicable +1 if:
Sputum Cultures	Four or more sputum cultures	All patients
CXR	CXR within the past 12 months	All patients
Growth Parameters	Four or more weight measurements <u>and</u> four or more height measurements	All patients
Fat-Soluble Vitamins	Completed measurement of Vitamin A, D, E and K	All patients
Liver Bloods	Completed measurement of AST, ALT and GGT	All patients
Miscellaneous Bloods	Completed measurement of WCC, Aspergillus serology and Serum IgE	All patients
Faecal Elastase	Faecal elastase measured	No diagnosis of pancreatic insufficiency
Spirometry	Four or more FEV1 measurements <u>and</u> four or more FVC measurements	Aged 6 or above
Diabetes Screening	OGTT conducted	Aged 11 or above <u>and</u> no diagnosis of diabetes

Conflict of Interest: None to declare