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Abstract Details

PRESENTATION TYPE: Poster

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AWARDS:

Abstract

TITLE: IMPROVING OUTCOMES FOLLOWING CHANGES IN THE CFRD CARE SETUP OF AN ADULT CF CENTRE

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ABSTRACT BODY:

Abstract Body: Introduction

The setup of CFRD care for adults with CF in Sheffield was changed in April 2014, with the introduction of monthly joint Consultant-led CFRD clinics, support by a diabetes specialist nurse (DSN), and a CF specialist nurse coordinating CFRD care & screening. Patients also receive interim appointments or telephone / text message support as required from the DSN. There is better communication between CF and diabetes teams and the need for insulin adjustments / regimen change is recognised more promptly.

This is a before and after comparison to explore the impact of this new CFRD care setup.

Methods

A retrospective review of all the HbA1c levels (normal range 19-48mM/M) for adults with CFRD in Sheffield since November 2013 was performed. HbA1c levels were analysed at a 6-monthly interval, with the most up-to-date HbA1c level for a given period used for analysis if there were more than one HbA1c results in a 6-month interval. Descriptive statistics of the HbA1c levels were performed. HbA1c levels at baseline were also compared against the levels at months 6, 12, 18 and 24 using paired T-test.

Results

All 47 adults with CFRD in Sheffield have received CFRD care with this new setup since April 2014. The median age of the cohort is 31 years (IQR 23 to 38 years), everyone is pancreatic insufficient, with 22/47 (46.8%) females, 42/47 (89.4%) homozygous for class I-III mutations (based on international consensus) and 31/47 (66.0%) have chronic Pseudomonas (based on Leeds criteria).

There is a trend of improving HbA1c levels and reducing variability in the HbA1c levels for the cohort of adults with CFRD. These improvements are statistically and potentially clinically significant. These improvements are also sustained over a 2-year period.

Conclusions

Following the implementation of the new CFRD care setup in the Sheffield Adult CF Centre, there have been significant improvements of HbA1c levels sustained over 2 years, which indicates better diabetes control. Further longitudinal data will be collected to determine the impact of these improvements on other health outcomes (such as FEV1, BMI and exacerbation rates) and to determine whether these improvements persist over a longer period.

HbA1c results over a 2 year period					
Time period	Number of people with CFRD that had HbA1c measured	HbA1c in mM/M, mean (SD)	Number of paired comparisons	Mean difference (and 95% CI) for comparison vs baseline	P-value for paired t-test of comparison vs baseline
Baseline (Nov '13 – Apr '14)	47	63.1 (26.1)	.	.	.
Month 6 (May – Oct '14)	45	59.5 (21.5)	45	-4.58 (-8.24 to -0.91)	0.016
Month 12 (Nov '14 – Apr '15)	44	57.1 (18.2)	44	-4.64 (-9.51 to 0.24)	0.062
Month 18 (May – Oct '15)	44	55.7 (17.4)	44	-6.32 (-11.67 to -0.97)	0.022
Month 24 (Nov '15 – Apr '16)	41	56.9 (16.3)	41	-6.17 (-12.10 to -0.25)	0.042

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