

Key problems with current oximeters

1. Lack of paediatric algorithms renders data inherently inaccurate
2. Sensor probes are unsuitable for continuous monitoring of active patients
3. Unable to filter out artefacts when monitoring patients in motion, making monitoring difficult for patients in the community

1. Lack of paediatric algorithms makes it difficult to accurately monitor perfusion levels and indicate warning thresholds

2. Motion currently introduces artefacts into the data set which algorithms are unable to exclude from data readings, meaning measurements can only be taken when the child is still



3. Finger and ear sensor probes unsuitable for taking measurements when child is active

Project addresses these unmet needs

Proposed solutions

1. Working with SCH, Viamed will use anonymised data from patients to develop bespoke algorithms for children
2. Working with patients at SCH, Viamed will adapt these algorithms for use on moving children
3. Viamed will develop a new discreet 'wearable' probe suitable for use by moving children for better management of perfusion monitoring in the community

Gantt Chart

	Months					
Milestones	1	2	3	4	5	6
1 - Benchmarking of existing technologies						
2 - Focus groups 1, 2 & 3						
3 - Competitor analysis (incuding IP)						
4 - NHS Ethics approval-1						
5- Converting user needs into design inputs						
6 - Enrichment of concepts						
7 - Clinical study protocol						
8 - Equipment and NHS ethics approval for benchmark testing-existing devices						
9 - Testing existing algorithm on 10 patients						
10 - Selection and validation of concept for phase II clinical evaluation						
10 - Project Management						
11 - Team meetings (x6)						



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18 July 2016

Dear Patrick,

I am writing in support of the application by Viamed and their partners to the SBRI Healthcare call on 'self-care and independence for children with long term conditions'.

The project under consideration was created as a direct output of an Innovation Workshop funded by the Yorkshire & Humber Academic Health Science Network on the 'developing new technology to aid the diagnosis and treatment of children'.

It is the opinion of the Yorkshire & Humber Academic Health Science Network that this project merits investigation, and that the predicted benefits to children, in allowing the monitoring of oxygen at home and during normal activity will meet the objectives of the SBRI healthcare call. The Yorkshire & Humber Academic Health Science Network has been involved in bringing this project consortium together, and will provide ongoing support to the team beyond phase I of the study

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'Neville Young'.

Dr Neville Young

Head of Commercial Development
YHAHSN