

Project scope: Orthotic bracing for pectus carinatum chest wall deformity

7 October 2021

Research question

The main research question is:

- What is the clinical effectiveness, cost effectiveness, safety and patient experience of orthotic bracing for pectus carinatum chest wall deformity?

The following supplementary questions will also be considered:

- What is the prevalence of pectus carinatum in the general population aged 0-16 years and is there any deprivation effect?
- What is the evidence on wear time, including the use of technology for recording/assessing wear time in pectus carinatum chest wall bracing?
- What is the evidence around patient adherence to recommended brace wear-time?
- What is the evidence on pressure for initial correction and pressure of treatment used to guide initial patient selection and treatment while in brace?

Inclusion criteria

The selection of studies for inclusion in the literature review element of the project will be based on the following criteria:

Population	Children (age <16) with pectus carinatum also known as 'pigeon chest'
Intervention	Orthotic compression bracing
Comparator	No intervention or surgical bracing
Outcomes	All outcomes reported in the literature relating to reduction in chest wall deformity (for example, reduction in protrusion, reduced need for surgical correction)

	<p>All outcomes reported in the literature relating to patient experience (for example, patient perception of deformity, satisfaction with treatment, experience of wearing the brace, quality of life)</p> <p>wear time</p> <p>compression pressure</p> <p>cost effectiveness</p> <p>safety</p>
Limits	<p>English language</p> <p>Any study design (systematic reviews/meta-analyses preferred if available)</p>

Planned activities

SHTG have agreed to produce an SHTG Assessment, which will include a comprehensive review of the published literature on orthotic bracing for pectus carinatum chest wall deformity. This will include consideration of evidence on clinical effectiveness, safety, cost effectiveness, and patient experiences.

The draft document will be subject to peer review with clinical and topic experts.

End products

At the end of the project, SHTG will publish:

- SHTG Assessment

Timescales (approximate)

Work on this project will start in October 2021, and we would aim to have the published SHTG Assessment available on the website in February 2022.