

Supporting information

Journal: BMC Cancer

Chest wall abnormalities in Swiss childhood cancer survivors

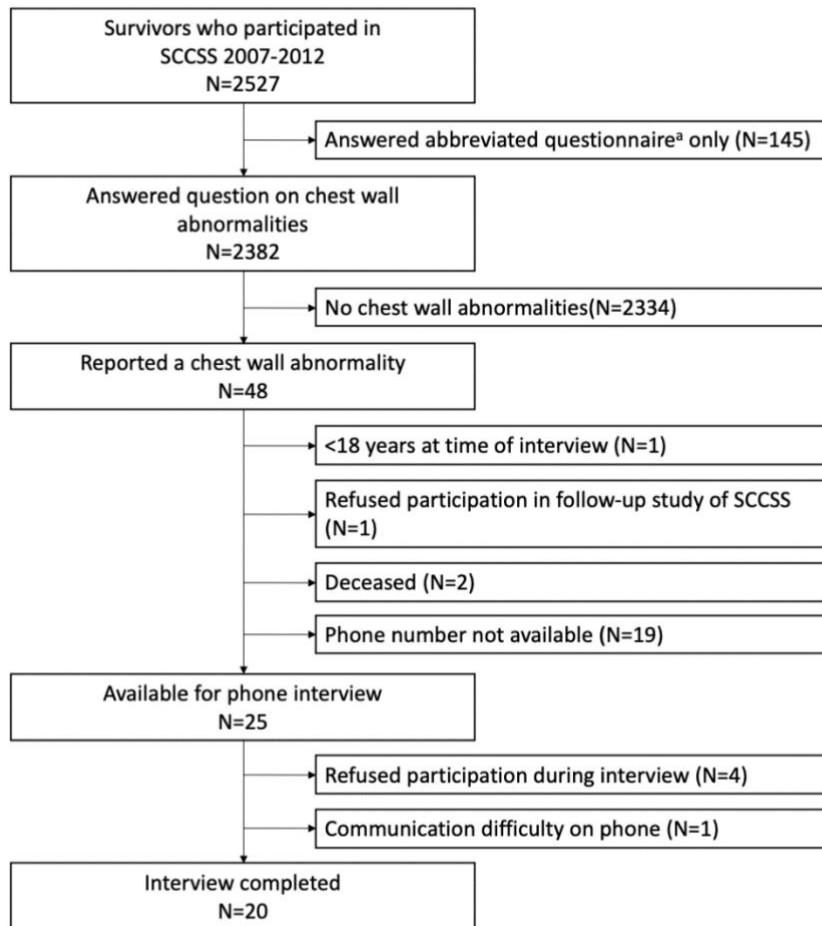
Rahel Kasteler, Christa Lichtensteiger, Christina Schindera, Marc Ansari, Claudia E. Kuehni;
for the Swiss Pediatric Oncology Group.

Corresponding author:

Prof. Claudia E. Kuehni, MD MSc

Childhood Cancer Registry
Institute of Social and Preventive Medicine
University of Bern
Mittelstrasse 43
3012 Bern
Switzerland

E-mail: claudia.kuehni@ispm.unibe.ch



Supplementary figure S1. Study flowchart for the participation in the telephone interview on chest wall abnormalities in the Swiss Childhood Cancer Survivor Study.

^a Addresses who did not complete the long questionnaire after mailings were offered an abbreviated version, which did not include the question on chest wall abnormalities
 Abbreviations: SCCSS, Swiss Childhood Cancer Survivors Study; N, number

A) Original question in German:

Atmungssystem (Lungen)					
Bitte kreuzen Sie an, ob ein Arzt Ihnen je mitgeteilt hat, dass sie folgendes haben...	Irgendwann im Leben		Seit wann?	Aktuell noch vorhanden?	
	Ja	Nein		Ja	Nein
Veränderungen am Brustkasten und/oder an den Rippen	<input type="checkbox"/>	<input type="checkbox"/>	_____ (Jahr)	<input type="checkbox"/>	<input type="checkbox"/>

B) Original question in French:

Système respiratoire (Poumon)					
Veuillez cocher, si un médecin vous a déjà dit que vous aviez l'un des problèmes suivants...	Déjà eu?		Quand?	Encore present?	
	Oui	Non		Oui	Non
Cage thoracique et/ou côtes anormale(s)	<input type="checkbox"/>	<input type="checkbox"/>	_____ (Année)	<input type="checkbox"/>	<input type="checkbox"/>

C) English Translation:

Respiratory System (Lungs)					
Have you ever been told by a doctor that you have, or have had...	Ever in life?		Since when?	Currently?	
	Yes	No		Yes	No
Changes in your thorax and/or ribs	<input type="checkbox"/>	<input type="checkbox"/>	_____ (Year)	<input type="checkbox"/>	<input type="checkbox"/>

Supplementary figure S2 Original question in A) German, B) French) and C) English translation of original question for adults on pulmonary health in the SCCSS questionnaire

Supplementary text

Systematic literature review

Clinical questions:

What chest wall abnormalities can occur in childhood cancer survivors as a late effect of childhood cancer and childhood cancer treatment?

What is the prevalence of chest wall abnormalities in childhood cancer survivors?

What are the risk factors for chest wall abnormalities in childhood cancer survivors?

PICO question:

P (Population)	childhood, adolescent, and young adult cancer survivors
I (Intervention)	n/a
C (Comparison)	n/a
O (Outcome)	chest wall abnormalities

Search terms:

Search 1: Population Cancer	
Textwords:	(Cancer* [Title/Abstract] OR Tumor [Title/Abstract] OR Tumors [Title/Abstract] OR Tumour [Title/Abstract] OR Tumours [Title/Abstract] OR carcinom*[Title/Abstract] OR neoplas*[Title/Abstract] OR malignan*[Title/Abstract] OR leukemia [Title/Abstract] OR leukaemia [Title/Abstract] OR lymphom*[Title/Abstract] OR hematopoietic stem cell transplantation [Title/Abstract] OR bone marrow transplant*[Title/Abstract])
	OR
MESH:	"Neoplasms"[Mesh] OR "Hematopoietic Stem Cell Transplantation"[Mesh] OR "Bone Marrow"[Mesh]
Search 2: Population Children/Adolescents	
Textwords:	(child* [Title/Abstract] OR infan*[Title/Abstract] OR adolescen*[Title/Abstract] OR pediatric*[Title/Abstract] OR paediatric*[Title/Abstract] OR young adult*[Title/Abstract] OR juvenil*[Title/Abstract])
	OR
MESH:	("Child"[Mesh] OR "Infant"[Mesh] OR "Adolescent"[Mesh] OR "Pediatrics"[Mesh] OR "Young Adult"[Mesh])
Search 3: Population Survivors	
Textwords:	(Surviv*[Title/Abstract] OR follow-up[Title/Abstract] OR followup[Title/Abstract] OR long-term[Title/Abstract] OR following treatment* [Title/Abstract] OR after treatment* [Title/Abstract] OR post treatment*[Title/Abstract] OR treatment complet*[Title/Abstract] OR treatment termina*[Title/Abstract] OR late effect*[Title/Abstract] OR treatment related[Title/Abstract] OR sequela*[Title/Abstract] OR treatment induced[Title/Abstract] OR after diagnosis[Title/Abstract] OR retrospective[Title/Abstract] OR correlation [Title/Abstract])

MESH:	OR ("Survivors"[Mesh] OR "Cancer Survivors"[Mesh] OR "Survival"[Mesh] OR "Aftercare"[Mesh])
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Search 4: Outcome Chest Wall Abnormalities

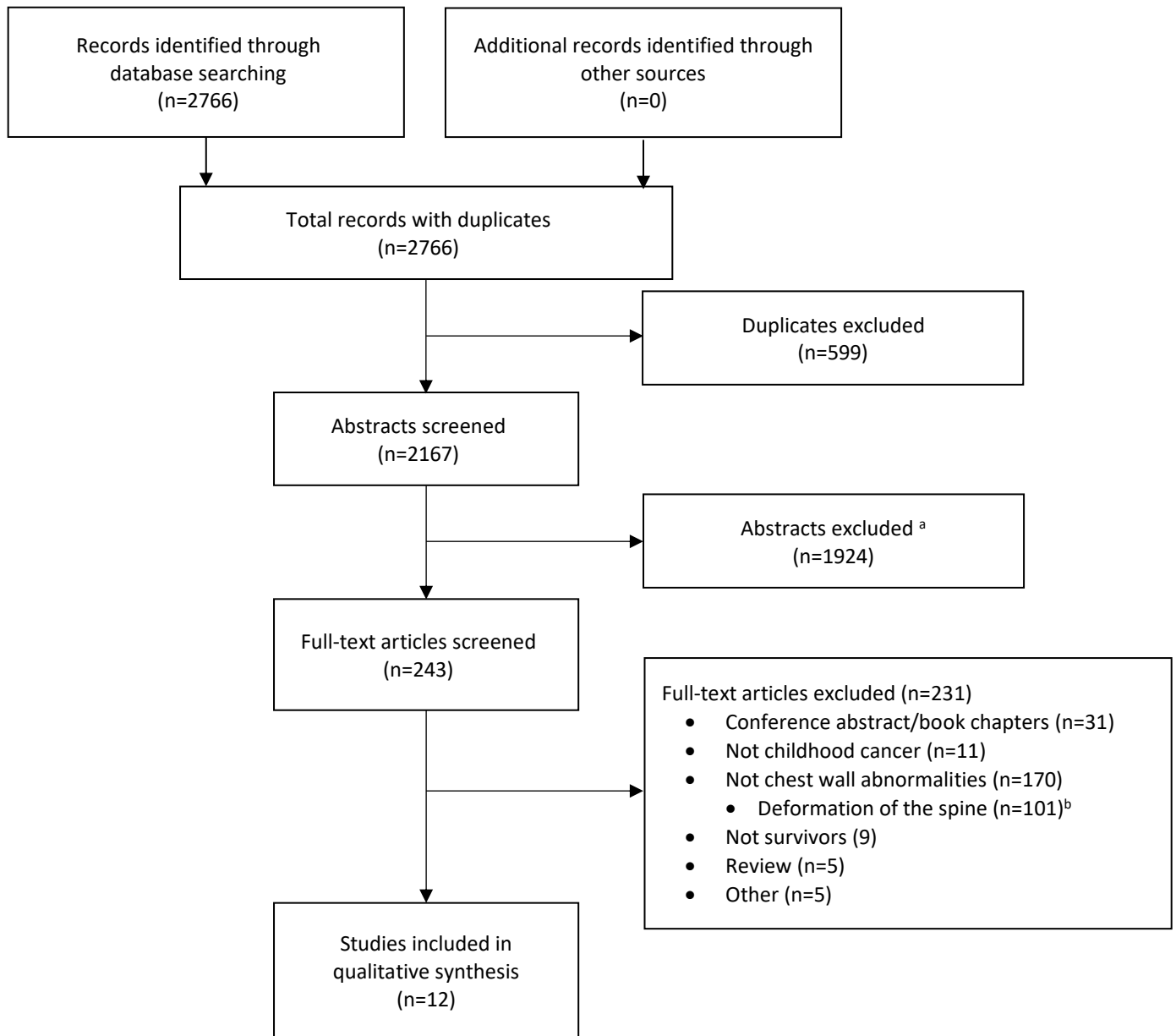
Textwords:	(Chest wall abnorm* [Title/Abstract] OR abnormal chest wall [Title/Abstract] OR Chest wall deform* [Title/Abstract] OR Chest wall asymmetr* [Title/Abstract] OR (chest wall[Title/Abstract] AND growth disturbance*[Title/Abstract]) OR (chest wall[Title/Abstract] AND growth retardation*[Title/Abstract]) OR Chest wall resection* [Title/Abstract] OR Kyphosis [Title/Abstract] OR Kyphotic deformity [Title/Abstract] OR Scoliosis [Title/Abstract] OR Scoliotic deform* [Title/Abstract] OR Lordosis [Title/Abstract] OR Thoracic wall deform* [Title/Abstract] OR Thoracic wall abnorm* [Title/Abstract] OR (Thoracic wall[Title/Abstract] AND asymmetr*[Title/Abstract]) OR (Thoracic wall[Title/Abstract] AND growth disturbance*[Title/Abstract]) OR (Thoracic wall[Title/Abstract] AND growth retardation[Title/Abstract]) OR Rib asymmetry* [Title/Abstract] OR Rib deform* [Title/Abstract] OR Rib abnorm* [Title/Abstract] OR Spinal deform* [Title/Abstract] OR Spinal abnorm* [Title/Abstract] OR Spinal asymmetry* [Title/Abstract] OR (Spinal*[Title/Abstract] AND growth disturbance[Title/Abstract]) OR (Spinal*[Title/Abstract] AND growth retardation[Title/Abstract]) OR Spinal malalignment [Title/Abstract] OR Spinal hypoplasia [Title/Abstract] OR Spinal deform* [Title/Abstract] OR (Reduction*[Title/Abstract] AND Spinal growth[Title/Abstract]) OR Impaired vertebral growth [Title/Abstract] OR Vertebral asymmetr* [Title/Abstract] OR Vertebral abnorm* [Title/Abstract] OR Vertebral malformation* [Title/Abstract] OR (Alternation[Title/Abstract] AND axial alignment[Title/Abstract]) OR Pectus carinatum [Title/Abstract] OR Pectus excavatum [Title/Abstract] OR Sternal defect* [Title/Abstract] OR Sternal deform* [Title/Abstract] OR Sternal malformation* [Title/Abstract] OR sternal abnorm* [Title/Abstract] OR ((musculoskeletal[Title/Abstract]) AND (adverse effect*[Title/Abstract] OR abnorm*[Title/Abstract] OR late effect*[Title/Abstract] OR sequela*[Title/Abstract] OR asymmetr*[Title/Abstract] OR deform*[Title/Abstract] OR growth disturbance*[Title/Abstract] OR growth retardation*[Title/Abstract] OR hypoplasia*[Title/Abstract] OR disease*[Title/Abstract] OR impairment*[Title/Abstract])) OR (asymmetric [Title/Abstract] AND vertebral growth [Title/Abstract]))
MESH:	OR "Thoracic Wall"[Mesh] OR "Musculoskeletal System"[Mesh:NoExp]

Search 1 AND 2 AND 3 AND 4	
Publication date from 1975/01/01 to 2019/12/31;	
English; French; German	
Humans only NOT (animals[mh] NOT humans[mh])	
Exclude publications types: NOT (letter[pt] OR news[pt] OR comment[pt] OR editorial[pt] OR congresses[pt] OR abstracts[pt])	

Search results:

Search platform	Before deduplication	After deduplication
PubMed	1228	1224
Embase Ovid	1238	695
Google Scholar	300	248
Total	2766	2167

599 duplicate records were removed



Supplementary figure S3. Prisma flow diagram of the article screening process

^a Inclusion criteria for abstract screening: Study population: survivors of childhood, adolescent, and young adult cancer (>=50% of population diagnosed prior to age 20 years); outcome: chest wall abnormality; all study designs; published 1975 onwards. Languages that were not spoken by members in the group (included are English, French, and German)

^b Full texts focusing on deformation of the spine (kyphosis, kyphoscoliosis, scoliosis) only were excluded.