## **Supplementary files**

## **S1.**

Design		Population	Concept	Context
1.	All information sources and types to be considered.	1. The youth athlete (Aged 19 and under)	4 Primary research providing outcome data on the pitch side, primary and	8 School/youth sports clubs and primary/secondary healthcare services
2.	Full text only	2. Include worldwide youth population	secondary care medical management of	worldwide.  9 Inclusion of
3.	Available in English language	3. Youth athletes who have sustained a concussion.	sport related concussion in youth sport.	players aged 19 and under in higher education.
4.	All publication years to be considered	4. Exclude non- sports related concussion.	5 Primary research providing outcome data on training and match day concussion recognition and removal strategies.	10 International, regional and local guidelines on youth concussion management.
			6 Primary research studies providing outcome data on concussion medical management innovation.	
			7 Exclude studies discussing concussion diagnostics.	

S1. Study PCC

	TI ((Concuss* OR Brain N3 Concussion OR
Varnuand Canada Title and Abstract	Head N3 Injur* OR Brain N3 Injur*OR Mild
Keyword Search: Title or Abstract	N3 traumatic N3 brain N3 injury OR mTBI OR
	Sub-concussive) AND (Protocol OR Guidance
	OR Management OR Return N3 to N3 play OR
	Graded N3 return N3 to N3 play OR GRTP OR
	Advice OR Care OR Clinical N3 decision OR
	Clinical N3 Management OR Outcome OR
	Response OR Medical N3 Management OR
	Pathway) AND (Youth OR Youth N3 player
	OR Youth N3 athlete OR Young N3 athlete OR
	Young N3 person OR Adolescen* OR Youth
	N3 Player OR Teen* OR Teen* N3 athlete OR
	Paediatric* OR Children)) OR AB ((Concuss*
	OR Brain N3 Concussion OR Head N3 Injur*
	OR Brain N3 Injur*OR Mild N3 traumatic N3
	brain N3 injury OR mTBI OR Sub-concussive)
	AND (Protocol OR Guidance OR Management
	OR Return N3 to N3 play OR Graded N3 return
	N3 to N3 play OR GRTP OR Advice OR Care
	OR Clinical N3 decision OR Clinical N3
	Management OR Outcome OR Response OR
	Medical N3 Management OR Pathway) AND
	(Youth OR Youth N3 player OR Youth N3
	athlete OR Young N3 athlete OR Young N3
	person OR Adolescen* OR Youth N3 Player
	OR Teen* OR Teen* N3 athlete OR Paediatric*
	OR Children))
	DR
MeSH Terms " OR MH ( ((MH "Adolescent") OR (MH	
	"Child") OR (MH "young adult")) AND ((MH
	"Brain Contusions") AND (MH "Brain
	Concussion") OR (MH "Postconcussion
	Syndrome")) AND ((MH "Case Management")
	OR (MH "Clinical Protocols")) )
Limiters Applied	None
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S2. Search strategy