

Supplementary file 12: Reasons for not implementing feedback for each section of the decision aid.

Themes	Sub themes	Feedback	Reason for not implementing feedback
Negative feedback on the decision aid	Negative feedback on the content	Health Professionals:	Health Professionals:
		A decision aid cannot be made for adolescents and children due to poor supporting evidence. [OS] It was suggested that pictures were not necessary in the decision aid. [PT]	We believe that it is still possible to create a decision aid using the best available evidence. We had a large amount of opposing feedback that participants liked the inclusion of some pictures.
Outline how the decision aid should be used	Improve clarity on the target population	Health Professionals:	Health Professionals:
		Add who does well with each option. For example, how many episodes of giving way is acceptable. [PT]	We couldn't do this as there is no evidence on who does well with each outcome.
	Clarify that choices should be made based on individual circumstances	Adults:	Adults:
		Provide definitions of what a successful or unsuccessful outcome.	Treatment success is individualised.
		Health Professionals:	Health Professionals:
		Add that decisions should be made based on skeletal maturity rather than age. [OS]	We decided to specify a recommended age limit for use of the decision aid and did not mention skeletal maturity directly due to feedback it was too complex for children and adolescents to understand.
More information about specific considerations	Highlight the importance of social and psychological support, and whole-body health	Parents:	Parents:
		Some parents suggested including information about alternative medicine.	There is a lack of supporting evidence for alternative medicine in both adults and children.
		Health Professionals:	Health Professionals:

following ACL rupture		Add information on methods of pain management. For example, the need for massage. [PT]	There is a lack of supporting evidence for pain management using massage in both adults and children.
	Revise the management options to include evidence on ACL healing, bracing and 'prehabilitation'	Children and adolescents:	Children and adolescents:
		Include non-operative bracing as another option. Give an estimation of the percentage of people that can have ACL healing.	There is currently no evidence comparing non-operative bracing to rehab only and ACL reconstruction. There is currently no strong link between ACL healing and outcomes so we did not want to overload children and adolescents with more statistics.
		Adults:	Adults:
		Include that it can take time to book ACL reconstruction, depending on if you have surgery privately or publicly.	This information was decided to be unnecessary as both rehabilitation timeframes mention the need to see a health professional.
		Health Professionals:	Health Professionals:
		Include recommendations of prehabilitation and checking if the ACL has healed after three months. [PT]	There is no evidence that prehabilitation is beneficial and there is currently no strong link between ACL healing and outcomes, so we did not want to overload children and adolescents with more statistics.
		Include more information on practical factors influencing management choices	Children and adolescents:
	Include that COVID 19 may have influenced having an ACL rupture.		There is no evidence to support this claim, so we decide to exclude.
	Adults:		Adults:
	Add consider the time it can take to book surgery.		This information was decided to be unnecessary as both rehabilitation timeframes recommend seeing a health professional.

		Parents:	Parents:
		Add the consideration of scar size following ACL reconstruction surgery.	Scars are mentioned in the description of ACL reconstruction, but we do not expand beyond this as there is a lack of high-quality evidence on the importance of scar size following ACL reconstruction.
		Health Professionals:	Health Professionals:
		Add a statement that meniscus is a secondary restraint in pivoting without an ACL. [OS] Include the injury risk related to graft type. [PT]	We did not include this statement as it was beyond the scope of this decision aid. We included a question about graft choices which provides an opportunity to discuss graft choice with a health professional.
	Add or remove questions	Parents:	Parents:
		The decision aid could prompt children and adolescents to ask about other previous injuries not just the ACL.	We included a question about previous injuries, but this was otherwise beyond the scope of this decision aid.
		Health Professionals:	Health Professionals:
		Add 'what factors have been shown to make a bigger difference' in achieving outcomes. [PT] Add 'if I don't have surgery how would my knee function be in the future? [OS]	We did not include this statement directly as there is no evidence on who does well with each outcome. We did not include this question as it could be considered a leading question.
Change or add information on rehabilitation, exercises and return to sport	Include more detail on return to sport following ACL rupture	Health Professionals:	Health Professionals:
		Include a statistic that participation in change of direction sports in children following ACL rupture may mean a higher risk of meniscus damage. [PT]	We did not include this statement as it was beyond the scope of this decision aid.
		Children and adolescents:	Children and adolescents:

Refine rehabilitation progression timeframes	Add remember to also focus on the uninjured leg during rehabilitation.	This information was decided to be unnecessary as both rehabilitation timeframes recommend seeing a health professional.
	Adults:	Adults:
	Add to settle the knee with bed exercises to avoid confusion that you start harder exercise straight away.	This information was decided to be unnecessary as both rehabilitation timeframes recommend seeing a health professional.
	Health Professionals:	Health Professionals:
	Add patient milestones or goals of each rehabilitation phase. [PT] Include when activities can be done. [OS]	This information was decided to be unnecessary as both rehabilitation timeframes recommend seeing a health professional.
Clarify the importance of testing rehabilitation progress and return to training or competition sport	Health Professionals:	Health Professionals:
	Add more detail on the classification of the individual's current level of sport and their desired level of sport. [PT]	We did not include this statement as it was beyond the scope of this decision aid.
Expand on the type of exercises involved in management	Children and adolescents:	Children and adolescents:
	Include the need to get a gym membership.	We did not include this statement as it was beyond the scope of this decision aid.
	Adult:	Adult:
	Include the importance of hard work on quadriceps muscle at the gym.	Providing specific rehabilitation guidelines were beyond the scope of the decision aid.
	Health Professionals:	Health Professionals:
	It was suggested to provide more detail on muscle strengthening programs and how exercise can help to stabilise the knee. [PT]	Providing specific rehabilitation guidelines were beyond the scope of the decision aid.

	Consider the long-term need for ongoing “hard work” and injury prevention	Health Professionals:	Health Professionals:
		Note that if meniscus and cartilage injuries happen, this can have major impact on the future osteoarthritis. [PT]	We noted the link between meniscus damage and risk of osteoarthritis damage. The risk of cartilage damage can be discussed with a health professional.
Modify language and formatting used	Use simple language	Health Professionals:	Health Professionals:
		Reduce the number of words used in the headings to describe each option. [PT]	We decided to keep ‘or delayed ACL surgery’ and ‘early ACL surgery’ in brackets following the headings of each option throughout to keep consistency.
	Make the section more concise	Health Professionals:	Health Professionals:
		Remove the statement about quality of evidence. [PT] Soften the language around return to sport as people can return sooner and be ok [PT]	We did not remove the statement about the quality of evidence as we believe this is important in showing the uncertainty of evidence and feedback frequently reported this as important to convey. We used evidence-based ranges of times for an expected for return to sport.
Modify presentation of harms, formatting, graphics, or statistics	Children and adolescents:	Children and adolescents:	
	Add more pictures to the decision aid.	We received opposing feedback that too many visuals may take away from key information.	
	Adult:	Adult:	
	Highlight the statistics that were ‘better’.	We did not apply highlighting around statistics to avoid bias.	
	Parents:	Parents:	

		Present statistics as percentages as it is easier to understand.	We received opposing feedback that ‘x amount of people per 100’ was preferable.
		Health Professionals:	Health Professionals:
		Include if there is a clinically significant difference in function scores between groups when presenting statistics. [PT]	We included a statement about the quality of evidence and presented statistics without significance values to avoid making the decision aid too complex.
		Use more visuals, pictures and make more like an infographic. [PT]	We received opposing feedback that too many visuals may take away from key information.
		Use a bar graph rather than an icon array. [PT]	We received opposing feedback that using icon array was preferable than a bar graph to represent statistics.
		Suggestion to include definitions of a complication. [PT]	The decision aid is designed to be used with a health professional who can clarify this information.
	Use positive messaging	Parents:	Parents:
		Include a statement that research is only presenting the average outcomes.	We used evidence-based statistics, but avoided using statements that may give unrealistic expectations.
		Health Professionals:	Health Professionals:
		Add a positive message in the form of a sentence at the end of the decision aid [PT]	It was decided that key points were more appropriate.
Understanding the translation of research	Usability of the decision aid	Health Professionals:	Health Professionals:
		Move the summary page to be the first page of the decision aid. [PT]	We received opposing feedback that it was appropriate to present the summary page on the last page of the decision aid.
		Children and Adolescents:	Children and Adolescents:

Clarify the uncertainty of evidence and outcomes of each option	Add statistics that females can be at a higher risk of ACL rupture.	We did not include this statement as it was beyond the scope of this decision aid.
	Health Professionals:	Health Professionals:
Keep or remove statistics using adult data	It was suggested to include that the position of the graft in ACL reconstruction can influence outcomes. [OS]	The inclusion of graft position as a variable is beyond the scope of our decision aid.
	Children and Adolescents:	Children and Adolescents:
	Adult statistics could be included as they may be more relevant for older skeletally mature adolescents.	We decided not to include adult statistics as we did not want to overload children and adolescents with more statistics.
	Adults:	Adults:
	Include adult data because if someone was 19 years old and they wanted to look at adult data then it could be relevant for them.	We decided not to include adult statistics as we did not want to overload children and adolescents with more statistics.
	Parents:	Parents:
Include adult data as it was clear enough that it was data using adults.	We decided not to include adult statistics as we did not want to overload children and adolescents with more statistics.	

