SUPPLEMENTARY FILE 10: Panellists' qualitative feedback for research priorities (Delphi Domain 5) for Delphi rounds 1 and 2, and Essential National Health Research (ENHR) ranking exercise

Table of Contents

SEARCH PRIORITIES	ł
48_Prospective cohort studies to investigate risk factors (aetiological and prognostic) of primary cam morphology in different cohorts	r
49_Prospective cohort studies that investigate how primary cam morphology develops in cohorts with variable loading demands (e.g.; difference sports/dance/physical activity level cohorts; and sedentary cohorts) (causal inference approach to investigate load as a risk factor for primary cam morphology)	ŀ
50_Prospective cohort studies that investigate how primary cam morphology develops in different sex/ gender cohorts; specifically women cohorts (causal inference approach to investigate gender as a risk factor for primary cam morphology)5	,
51_Prospective cohort studies that investigate how primary cam morphology develops in different parasport cohorts (causal inference approach to investigate load as a risk factor for primary cam morphology)	,
52_Prospective cohort studies that investigate how primary cam morphology develops in different race/ethnic cohorts (causal inference approach to investigate race/ethnicity as a risk factor for primary cam morphology)	;
53_Prospective cohort studies that investigate other potential risk factors for primary cam morphology (causal inference approach to investigate the following risk factors: anatomical-spine; acetabulum; femur; kinetic and kinematic risk factors; mechanical and biomechanical; other possible risk factors that might emerge over time)	;
54_Prospective cohort studies that investigate prognosis (consequences) of primary cam morphology in different cohorts	;
55_Studies (including diagnostic accuracy studies) to determine the diagnostic criteria for Cam and Pincer morphology	j
56_Studies to develop and validate diagnostic and prognostic models for primary cam morphology in young (maturing) athletes	j
57_Prospective cohort studies to investigate how exercise intervention influences the development and prognosis of primary cam morphology in cohorts with variable loading demands	,
58_Randomised controlled clinical trials to investigate how exercise intervention (load management) influences the development and prognosis of primary cam morphology in different demographic (e.g. sex/ gender; race/ ethnicity) and load (variable loading demands - e.g. different sports; dance; and physical activity level) cohorts	,

59_Studies to investigate the potential benefits and harms of screening for primary cam morphology in young athletes	
60_Studies involving economic evaluation to determine the cost-effectiveness of different diagnostic; prognostic; and therapeutic approaches to primary cam morphology	;
61_Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers)	;
62_Prospective cohort studies that investigate how pincer morphology develops in different cohorts	;
63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts	;
64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts	;
65_Randomised controlled clinical trials to investigate how exercise intervention influences the development and prognosis of femoroacetabular impingement syndrome in cohorts with variable loading demands	;
66_Randomised controlled clinical trials to investigate best practice physiotherapy vs arthroscopic hip surgery vs sham surgery in cohorts with variable loading demands diagnosed with femoroacetabular impingement syndrome	;
67_Prospective cohort studies to investigate the prognosis after best practice physiotherapy and/or arthroscopic hip surgery in different sport/dance/physical activity level cohorts with femoroacetabular impingement syndrome)
68_Randomised controlled clinical trials to investigate what best practice physiotherapy is (e.g. in different populations and settings; pre- and post- surgery))
69_Studies to determine the best criteria for rehabilitation progression and Return To Sport (RTS) following management of hip-related pain	ļ
70_Studies to investigate; report and improve the psychometric properties of tests of (1) range of motion; (2) muscle strength (3) functional performance (4) Quality of Life (QOL) and other psychological outcomes for studies on aetiology; diagnosis; treatment and prognosis)
71_Studies to investigate the relationship among movement-related parameters (biomechanics; muscle function), symptoms, function, quality of life, and imaging and intra-articular hip findings in individuals with hip-related pain)
72_Studies (randomised controlled clinical trials; cohort studies; cross sectional studies; qualitative studies) to investigate the clinical effectiveness of other treatments used in people with hip-related pain (hip joint intra-articular injections; analgesic and anti-inflammatory medications; manual therapy adjunctive techniques such as taping; bracing and orthotics))

 73_Studies to investigate cost-effectiveness of different diagnostic, prognostic. and therapeutic approaches to femoroacetabular impingement syndrome and primary cam morphology
74_Qualitative studies to investigate the perspectives/ preferences/ attitudes/ concerns/ experiences of femoroacetabular impingement syndrome (including FAI syndrome and primary cam morphology) stakeholders (e.g. but not limited to: athletes/ parents/ coaches/ patients with hip disease/ clinicians/ researchers)
75 _Education intervention studies (pilot studies; RCT) in individuals with hip-related pain to assess the specific effect of patient education (in addition to other interventions; e.g. exercise intervention) on pre-defined patient-related outcomes. For education intervention consider content, modes of delivery and the use of innovative technologies to enhance education benefits
76_Studies to investigate the performance of the diagnostic criteria for hip disease presenting with hip-related pain in young and active adults 10
77_Core outcome set (COS) development studies for each of the conditions related to hip disease/hip-related pain in young and active adults
78_Research studies into the utility of HAGOS and iHOT instruments in a non-surgical treatment context
79_Studies to analyse of content and structural validity, and the relationship between individual measurement error and the minimal clinically important change for the recommended PROMs
80_Studies to investigate the impact of the diagnostic components of a specific hip condition on diagnostic or prognostic thinking (e.g. stratifying patients into high and low risk) in young and active adults
81_Studies to develop and validate diagnostic and prognostic models for the different hip diseases presenting with hip-related pain in young persons 11
82_Studies to investigate the additional benefit of advanced imaging (e.g. magnetic resonance imaging and/ or computed tomography scan) for diagnosis of hip disease presenting with hip-related pain in young and active adults
83_Studies to investigate the additional benefit of advanced imaging (e.g. magnetic resonance imaging and/ or computed tomography scan) for agreeing on an appropriate treatment strategy for hip disease presenting with hip-related pain in young and active adults
84_Studies to investigate the additional benefit of advanced imaging (e.g.; magnetic resonance imaging and/or computed tomography scan) for prognosis of hip disease presenting with hip-related pain in young and active adults
85_Studies to investigate cost-effectiveness of different diagnostic and therapeutic approaches in conditions affecting the young person's hip

Statement and qualitative feedback (including reasons for score boundary changes between Round 1 and Round 2) – Consensus statements	
IN GREEN and non-consensus on YELLOW	
 48 48_Prospective cohort studies to investigate risk factors (aetiological and prognostic) of primary cam 	morphology in different cohorts
 Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established The impact depends on identifying individuals at risk of developing cam morphology, and then having an acceptable intervention to promote exercise in youth. In the long term as most cam morphology does not seem to cause problems - finding out about its aetiology would not be top prior then deal with this - we don't want to make kids inactive! For the category APPROPRIATENESS - SHOULD WE DO IT? People might be unaware of the data available. For example, we prospective general population study in children on which we have prospective follow-up imaging data of the hip of around 3000 ongoing) Are the best study design, but have ethical and economic issues Multicentre studies would really improve knowledge and patient care Some questions are challenging to be answered. For example Category 3 question 1: infrastructure and supporting systems are different of the sy	to reduce this risk, which is challenging when we wish rity for me - also if its due to athletic loading - how to are now working in Generation R, which is a children at ages 9, 13 and 17 years (the latter is ferent and varying between countries (for the particular
 Some questions are chainenging to be answered. For example Category 3 question 1: Intrastructure and supporting systems are difficult international study). My respond is 'Cannot answer based' on the above comment. My personal view as someone who is privileged and capacity would be excellent 3. I am sorry of I am not able to help with this. Category 4, question 2: Is it the impact on health or will base my answer re: the impact the research would have for the athletic population (and overall my answers for category 4). Cl Although I agree hugely with the statement that there is a need for prospective cohort studies, the implications of incidental findin to be developed further More a general comment. It is clear that well-conducted cohort studies are the first option, but also well-conducted case-control ar epidemiology properly done including simulations showing that when appropriately conducted and designed the results are comparin a cohort is a good option especially if the event is rare. It is also true that the bad reputation of case-control derives from the par studies in sports medicine are poor (methodologically speaking). This is to say that the methodology is important and more importing studies in sports medicine are poor (methodologically speaking). This is to say that the methodology is important and more importing studies in sports medicine are poor (methodologically speaking). This is to say that the methodology is important and more importing important and more importing studies in sports medicine are poor (methodologically speaking). This is to say that the methodology is important and more important and population. 	to be the particular of the particular diversity of the particular diversity of the general population or the athletic population? I hallenging questions to answer. Thank you gs and how imaging outcomes are communicated needs re informative. There are a lot of studies in arable to cohort studies. In the end, a case-control nested st poor studies and, unfortunately, the majority of the epi tant than the design itself. My two cents.
49 49_Prospective cohort studies that investigate how primary cam morphology develops in cohorts wit difference sports/dance/physical activity level cohorts; and sedentary cohorts) (causal inference appr for primary cam morphology) Outling for the physical activity level cohorts and sedentary cohorts.	h variable loading demands (e.g.; roach to investigate load as a risk factor
 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established Several studies suggested the relation between loading and cam morphology development; but which loading threshold exactly trig (critical). The effect of different loading patterns is the salient question, as it may be possible to modify loading in specific athletic population. The effect of different loading patterns is the salient question, as it may be possible to modify loading in specific athletic population. The effect of different loading patterns is the salient question, as it may be possible to modify loading in specific athletic population. This may be challenging given we hope most youth would be involved in multiple sports (avoiding specialization) and/or multiple looking at specialization vs not - i.e. would a ice hockey player who plays year round develop cam morphology at higher rate than sports? As per the previous statement re need to develop how findings are communicated. Although I agree that we need to investigate C4 here multiple line results of bother line in the previous statement result of the previous statement result of	ggers this is unknown. Therefore I changed it to 7 ons, but perhaps not in general population cohorts. e loading patterns over time. There may be a role for an age-matched individual participating in several AM in different cohorts, perhaps a starting point should

	 My concern with this is in how "load" gets defined in the research. If this is simply step count or impact loading, it may not be as informative as understanding directions of loading. It depends on the sports of course, but as an example, there is no way that disciplines such as dance will change something in terms of load to prevent the development of health problems. That's why I indicated fair to moderate in the last question. I balanced the potential impact in relation to the capacity of the sports discipline to implement any recommendations. For some is probably easier than others.
50	50_Prospective cohort studies that investigate how primary cam morphology develops in different sex/ gender cohorts; specifically women
	cohorts (causal inference approach to investigate gender as a risk factor for primary cam morphology)
	Qualitative feedback
	• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
	• The challenge will be suggesting activity modification in general population cohorts when we should be promoting activity for cardiovascular benefits.
	On the one hand we know little about females - but what we do no would suggest lower prevalence - so even larger groups and costs needed to study!
	Straight forward and needs to be done
	• It feels like there is an ethical imperative to ensure there is more research in this space around females given the lack of current data.
	• As we have no data on the problem, the size and severity of the problem is difficult to quantify.
51	 Burden of fillness seems to be higher in females (>50% of surgeries, and worse outcomes). E1 Dream active schemt studies that investigate how prime revealed and evelope in different person act schemts (source) information.
51	51 Prospective conort studies that investigate now primary cam morphology develops in different parasport conorts (causal inference
	approach to investigate load as a risk factor for primary cam morphology)
	Qualitative feedback
	• non modifiable
	 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not know the extent of his related pain in presents. This would influence the relevance of further research.
	 I do not know the extent of hip-related pain in parasports. This would influence the relevance of further research In all my years of treating EAIS yeary yeary few Para sporters
	 Difficult population to study because infrastructure to support isn't as strong. BUT incredibly important.
	• Big challenge is to have a large enough sample size, for sure this has to be an IPC supported activity
	• Currently no data for Category 2, so not sure how to respond to that one
	• I realize I don't know much about the current research etc in parasport so I ended up answering "cannot answer" a lot.
	Adequate sample size and planning for dropout seem to be challenge to meet this Research Statement.
52	52_Prospective cohort studies that investigate how primary cam morphology develops in different race/ethnic cohorts (causal inference
	approach to investigate race/ethnicity as a risk factor for primary cam morphology)
	Qualitative feedback
	• non modifiable
	 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
	• It will be important to have people of diverse races/ethnicities respond to this question
	• As race is non-modifiable I would not make this a priority
	• I rated this lower simply as I consider the other longitudinal studies of greater importance as a specific Q. Although a sub-group analyses to assess for face/ethnic differences should/could be part of the bigger study.
	 Hot topic right now - important one. Will require infrastructure to adequately sample diverse populations
	 Comment to category 2 is the same as the previous one.
	• "Race" is a difficult construct, especially when treated categorically. I would challenge, what is it that you are categorizing on? And why? Is this about genetic differences (which, well,
	aren't really about race) or about behavioural differences or socioeconomic differences?

	• In the US, recruitment for medical studies based on race has challenges based on historical mis-steps.
53	53_Prospective cohort studies that investigate other potential risk factors for primary cam morphology (causal inference approach to
	investigate the following risk factors: anatomical-spine; acetabulum; femur; kinetic and kinematic risk factors; mechanical and biomechanical;
	other possible risk factors that might emerge over time)
	Oualitative feedback
	• unclear how this differs from the first statementbut with more focus
	• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
	Although it is an important question, there is no guarantee that studies will successfully answer this research question.
	Good to explore other factors - most of the time attention goes to load
	• I think this isn't a current priority but a future one Although Learne with the idea are here formation on the his planar first hefers we extend out to "other" side for targe
	 Although 1 agree with the idea perhaps focussing alternition on the big players first before we extend out to other first factors? Examining the mentioned notential rick factor using appropriate methods of causal inference requires a lot of data and some are difficult to collect prospectively on a relatively large.
	• Examining the mentioned potential risk factor using appropriate methods of causar inference requires a for of data and some are difficult to conect prospectively on a relatively large scale. Feasibility is in my opinion very low.
54	54_Prospective cohort studies that investigate prognosis (consequences) of primary cam morphology in different cohorts
	Qualitative feedback
	• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
	• Although we may be able to prognosticate, need better evidence for interventions to modify disease trajectory.
	 Really difficult to do these types of studiesbut vitally important. Funding always an issue Lower chance of success in my opinion, due to the time frame necessary (years).
55	 Edwer chance of success, in my opinion, due to the time name necessary (years). Studios (including diagnostic accuracy studios) to determine the diagnostic criteria for Cam and Dincer morphology.
	Duplicative feedback
	• The question is unclear to me. If referring to the clinical diagnosis of CAM: I think this notential is limited and research less relevant
	 Diagnostic criteria are very important. Better quality studies investigating this will improve diagnostic criteria however, like so many other diagnostic criteria, FAIs is a complex 3D
	dynamic problem and I'm not sure if we can put this all together into a set of very clear diagnostic criteria for FAIs. However, it is certainly worth the effort trying to capture and
	diagnose at least the 'average' patient with FAIs
	 Considering agreement on cam morphology being a finding and not a diagnosis, I suggest rephrasing diagnostic accuracy - possibly to measurement accuracy and cut-off values or something in that line
	• Agree a consensus is needed re a gold standard diagnostic tool if possible. But would urge caution here and this research needs to be carefully developed/investigated by focusing not
	only on imaging outcomes but correlation with clinical outcomes
	• More recently, I've been appreciating the challenge of this "dichotomous" definition of both cam and pincer. Either you have the morphology or you don't, but really, it is about degrees
5((literally) of risk. So "diagnostic criteria" may focus too much on a dichotomous view.
56	56 _Studies to develop and validate diagnostic and prognostic models for primary cam morphology in young (maturing) athletes
	Qualitative feedback
	• This will be important in the future; but I don't think the field is ready right now. Seems identification of risk factors (e.g. explanatory analyses) is more important right now than risk stratification (e.g. explanatory analyses).
	stratification (e.g. prediction)
	 I averaged the rating. I would not combine prognostic and diagnostic in the same question. For the it is more critical prognostic. I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
	 Studies in the youth may be a sensitive issue

 Again similar to statements 48-54 when developing prognosis models it is important to discuss communication strategies around such models 57_Prospective cohort studies to investigate how exercise intervention influences the development and prognosis of primary calin cohorts with variable loading demands Qualitative feedback I do not think we are at this stage yet! I do not agree that the concept of Primary and secondary CAM is commonly agreed and established 	ortant to me first is
 57_Prospective cohort studies to investigate how exercise intervention influences the development and prognosis of primary calin cohorts with variable loading demands Qualitative feedback I do not think we are at this stage yet! I do not agree that the concept of Primary and secondary CAM is commonly agreed and established 	ortant to me first is
• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established	ortant to me first is
	ortant to me first is
This can't be effectively done until prospective cohort studies are complete and interventions are developed	ortant to me first is
• We must focus more on exercise intervention (and then well described programs (type of exercise; repetitions; load)); particularly in the pre surgery phase. Most improve conservative treatment with exercise for symptomatic patients.	t, e.g. people may do
 It may be difficult to determine variable loading demands in different sport disciplines. One may need to consider load outside of the structured sporting environment other sports/training participation outside of a structured programme? I'm not a fan of using cohort study design to study the effects of interventions 	
 I am not a fail of using contrastady design to study the crices of interventions. I am not sure about this statement after reading it again - in my opinion, exercise "interventions" is ill-defined. For me exercise interventions are interventions for exis we really looking at load management strategies to mitigate risk as opposed to exercise interventions? Or are we are talking about exercise interventions (strength, fle mitigate risk? Sorry for being pedantic 	sting conditions, are exibility etc?) to
ⁱ⁸ 58_Randomised controlled clinical trials to investigate how exercise intervention (load management) influences the developme	nt and
prognosis of primary cam morphology in different demographic (e.g. sex/ gender; race/ ethnicity) and load (variable loading der	mands - e.g.
different sports; dance; and physical activity level) cohorts	
Qualitative feedback	
• I am unsure how randomised controlled clinical trials would differ from prospective cohort studies. In any case; this item seems worthy of further research; however	that is done.
• Feasibility for an appropriate RCT seems to me low.	
 Well defined exercise intervention in asymptomatic and symptomatic patients. Lyould take an PCT over a cohort study. 	
 The demographic differences may be a sensitive issue 	
 Would be massive study required with huge costs to crack this nut - and at the end of the day - very hard to get people to change behaviour regarding sports activities 	
Current knowledge doesn't lend itself to RCTs	
• So, I clicked back to see if I had missed something in the previous statement, here exercise intervention is defined as load management, in the previous it isn't. Are the	ey meant to be the
same? Agree with the need for load management interventions - but I would define them as thus instead of exercise interventions?	<u> </u>
59 _Studies to investigate the potential benefits and harms of screening for primary cam morphology in young athletes	
Qualitative feedback	
 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established This isn't as important as some of the other research priorities but Lyclus the desire to study herefit/herm trade offer 	
 This isn't as important as some of the other research profiles but I value the desire to study benefit/harm trade-ons I think screening is not useful 	
 Very few people are now screened - those that are come from elite sports backgrounds - and those setting are unlikely to change practice - low priority one for me 	
• Absolutely agree, this is something that should be taken very seriously and involve all stakeholders	
I cannot really answer because this basically depends on the previously mentioned potential studies	

 to primary cam morphology Qualitative feedback Maybe once we've established more information; then we can worry about optimising costs of associated treatments; etc. I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think more of the mechanistic studies will be most helpful to initially move this field forward; though important down the road 61 G1_Qualitative (e.g., but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I do not agree that the investigate how pincer morphology develops in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 Prospective coh		bu _studies involving economic evaluation to determine the cost-effectiveness of different diagnostic; prognostic; and therapeutic approaches
Qualitative feedback • Maybe once we've established more information; then we can worry about optimising costs of associated treatments; etc. • I do not agree that the concept of Primary and secondary CAM is commonly agreed and established • I think more of the mechanistic studies will be most helpful to initially move this field forward; though important down the road 61 G1_Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback • I do not agree that the concept of Primary and secondary CAM is commonly agreed and established • I do not agree that the concept of Primary and secondary CAM is commonly agreed and established • I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 G2 Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback • More important than how: whether it actually matters - i.e. prognosis 64 G4 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback • More important than how: whether it actually matters - i.e. prognosis 64 G4 Prospective cohort studies to investigate risk factors fo		to primary cam morphology
 Maybe once we've established more information; then we can worry about optimising costs of associated treatments; etc. I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think more of the mechanistic studies will be most helpful to initially move this field forward; though important down the road 61Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62_Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback The scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		Qualitative feedback
 I do no agree that the concept of Primary and secondary CAM is commonly agreed and established I think more of the mechanistic studies will be most helpful to initially move this field forward; though important down the road 61 G1_Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 G2_Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63 G3_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 G4_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback Tve scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		• Maybe once we've established more information; then we can worry about optimising costs of associated treatments; etc.
 61 G1_Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 62_Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established • I think more of the mechanistic studies will be most helpful to initially move this field forward: though important down the road
 Morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers) Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63 Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback Vre scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 	61	61 Qualitative / Mixed-methods studies to investigate the perspectives/preferences/attitudes/concerns/experiences of primary cam
Qualitative feedback I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 62_Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback Tve scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical 0 Development and prognosis is different (or at least not clear here).		morphology stakeholders (e.g. but not limited to: athletes/parents/coaches/patients with hip disease/clinicians/researchers)
 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 62_Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		Qualitative feedback
 I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences 62 62 Prospective cohort studies that investigate how pincer morphology develops in different cohorts Qualitative feedback We can't do RCTs so this is a good method 63 63 Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback 		• I do not agree that the concept of Primary and secondary CAM is commonly agreed and established
 62 Prospective conort studies that investigate now pincer morphology develops in different conorts Qualitative feedback We can't do RCTs so this is a good method 63 63 Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 	62	• I think understanding the science behind primary cam morphology has greatest potential for impact; but value stakeholder experiences
 We can't do RCTs so this is a good method 63 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 	02	62 _Prospective conort studies that investigate now pincer morphology develops in different conorts
 63 63_Prospective cohort studies that investigate pincer morphology prognosis in different cohorts Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		• We can't do RCTs so this is a good method
 Qualitative feedback More important than how: whether it actually matters - i.e. prognosis 64 Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 	63	63 Prospective cohort studies that investigate pincer morphology prognosis in different cohorts
 More important than how: whether it actually matters - i.e. prognosis 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		Qualitative feedback
 64 64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		More important than how: whether it actually matters - i.e. prognosis
 in different cohorts Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 	64	64_Prospective cohort studies to investigate risk factors for the development and prognosis of femoroacetabular impingement (FAI) syndrome
 Qualitative feedback I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		in different cohorts
 I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical Development and prognosis is different (or at least not clear here). 		Qualitative feedback
 Development and prognosis is different (or at least not clear here). 		• I've scored this higher as it includes CAM; and my understanding is that this is more likely to lead to symptomatic concerns; but I feel the more specific questions asked earlier on are more critical
		 Development and prognosis is different (or at least not clear here).
Capacity of the system mainly relates to financial implications. Will funding agencies/governments see this as a priority for funding?		Capacity of the system mainly relates to financial implications. Will funding agencies/governments see this as a priority for funding?
The impact on stakeholders and their involvement is a crucial tenant in this statement	65	• The impact on stakeholders and their involvement is a crucial tenant in this statement
b _Randomised controlled clinical trials to investigate how exercise intervention influences the development and prognosis of	03	65 Randomised controlled clinical trials to investigate how exercise intervention influences the development and prognosis of
femoroacetabular impingement syndrome in cohorts with variable loading demands		femoroacetabular impingement syndrome in cohorts with variable loading demands
Qualitative feedback		Qualitative feedback
 I have never had surgery so may be a bit biased towards non-surgical treatments 		 I have never had surgery so may be a bit biased towards non-surgical treatments
• Huge studies and thus huge costs - would be great - but again the crux may then be getting people to modify behaviour or do something preventive - low chance of this impacting real life		• Huge studies and thus huge costs - would be great - but again the crux may then be getting people to modify behaviour or do something preventive - low chance of this impacting real life
• I don't think I understand the statement correctly. Development of FAI - prior to FAI. Prognosis of FAI - after FAI i.e. treatment. I would answer differently to these, therefore answers to		• I don't think I understand the statement correctly. Development of FAI - prior to FAI. Prognosis of FAI - after FAI i.e. treatment. I would answer differently to these, therefore answers to
these combined is difficult. • Agree with the need for studies on this again as outlined in an earlier statement perhaps pooling of resources/skills to start with one sport/cohort and do this well before extending		these combined is difficult. • Agree with the need for studies on this again as outlined in an earlier statement perhaps pooling of resources/skills to start with one sport/cohort and do this well before extending
outwards		outwards
66 66_Randomised controlled clinical trials to investigate best practice physiotherapy vs arthroscopic hip surgery vs sham surgery in cohorts with	66	66_Randomised controlled clinical trials to investigate best practice physiotherapy vs arthroscopic hip surgery vs sham surgery in cohorts with
variable loading demands diagnosed with femoroacetabular impingement syndrome		📕 variable loading demands diagnosed with femoroacetabular impingement syndrome

	 Qualitative feedback Or what happens if we leave it - i.e. true control/no treatment We already have 3 trials Before one need to establish what best practice physiotherapy is One first need to determine the extent of the problem before moving on to RCTs The expertise is there but funding will be a challenge given comparison with other research priorities in this population THE CHANCE OF SUCCESS - CAN WE DO IT? The more studies on this topic are being done and published, the more difficult it becomes to get funding (and these RCTs are generally costly).
67	 67_Prospective cohort studies to investigate the prognosis after best practice physiotherapy and/or arthroscopic hip surgery in different sport/dance/physical activity level cohorts with femoroacetabular impingement syndrome Qualitative feedback Researching best practices is somewhat important. Are we ready for this? Do we know best practice yet such that we can test it in different cohorts? Better with RCT I feel this is already covered under an earlier statement on variable loads. I doubt the concept/idea is controversial but the methods used to capture outcomes has been to date. Need for consensus here on appropriate outcome measures, time points for capture etc
68	 68 Randomised controlled clinical trials to investigate what best practice physiotherapy is (e.g. in different populations and settings; pre- and post-surgery) Qualitative feedback Strongly agree w this. My experience of physiotherapy as an elite athlete was v mixed - some good; some poor RCTs are gold standard but not sure the field is ready for them This would be my number 1 priority Taking my bias out of the equation for a minute, if we are going to insist in sham surgery trials should we perhaps do so for best practice PT too? E.g. Best practice vs sham (advice? generic stretching?)
69	 69_Studies to determine the best criteria for rehabilitation progression and Return To Sport (RTS) following management of hip-related pain Qualitative feedback As an elite athlete worries about RTS (which was my living) caused major anxiety for me so this is important. It is difficult to answer. It is a quite generic statement Important but other issues may be more important
70	 70 Studies to investigate; report and improve the psychometric properties of tests of (1) range of motion; (2) muscle strength (3) functional performance (4) Quality of Life (QOL) and other psychological outcomes for studies on aetiology; diagnosis; treatment and prognosis Qualitative feedback Methodological work is underpinning of strong science This question is unclear to me These are patient outcomes that I deem important to study but clinicians may feel more strongly about some of the other research topics
71	71_Studies to investigate the relationship among movement-related parameters (biomechanics; muscle function), symptoms, function, quality of life, and imaging and intra-articular hip findings in individuals with hip-related pain

	Qualitative feedback
	These could be valuable in that primary cam morphology is most likely multifactorial
72	72_Studies (randomised controlled clinical trials; cohort studies; cross sectional studies; qualitative studies) to investigate the clinical
	effectiveness of other treatments used in people with hip-related pain (hip joint intra-articular injections; analgesic and anti-inflammatory
	medications; manual therapy adjunctive techniques such as taping; bracing and orthotics)
	Qualitative feedback
	Agree - I always saw surgery as a last resort
73	 Happy that this is needed - prefer to leave level of priority to the ENHR process 72 Studies to investigate cost offectiveness of different diagnostic prognestic and theremoutic enpressions to femeracestabular impingement
15	75 _studies to investigate cost-effectiveness of different diagnostic, prognostic, and therapeutic approaches to remoroacetabular impingement
	syndrome and primary cam morphology
	Qualitative reedback I think understanding cost-effectiveness is an important aspect to assessing diagnostic: therapeutic interventions
	 Cost-effectiveness is less important to me at this stage; but I value its importance to clinicians
74	74 Qualitative studies to investigate the perspectives/ preferences/ attitudes/ concerns/ experiences of femoroacetabular impingement
	syndrome (including FAI syndrome and primary cam morphology) stakeholders (e.g. but not limited to: athletes/ parents/ coaches/ patients
	with hip disease/ clinicians/ researchers)
	Qualitative feedback
	• In principle I am in favour of including these kinds of stakeholders. But in reality some have whacky views (like anti-vaxxers) which may not helpfully inform clinical progress.
	 I do not agree that the concept of Primary and secondary CAM is commonly agreed and established A gain: this type of research is important but don't think it is where we should focus research priorities currently. Moved up to indicate importance.
75	75 Education intervention studies (nilot studies: BCT) in individuals with hin-related pain to assess the specific effect of patient education (in
	addition to other interventions: e.g. eversise intervention) on pre-defined patient related outcomes. For education intervention consider
	addition to other interventions, e.g. exercise intervention on pre-defined patient-related outcomes. For education intervention consider
	Content, modes of derivery and the use of innovative technologies to enhance education benefits.
	• Strongly in favour of patient education. As an elite athlete receiving treatment I always felt insufficiently educated about injuries I was having to recover from and scientific jargon from
	specialists can be bewildering.
	Happy that this is needed - prefer to leave level of priority to the ENHR process
	 Input from clinical or research opinion Same as above patient education is important but are we ready to provide them with evidence based guidance? Other research questions more important. Moved closer to center to align
	with importance of topic
	Minor adjustment
-	Not my cup of tea but since the webinar patients perspective is important and also to teach
76	76_Studies to investigate the performance of the diagnostic criteria for hip disease presenting with hip-related pain in young and active adults
	Qualitative feedback
77	 This seems like it should be a major priority to ensure accurate and appropriate diagnosis 77 Core outcome act (COC) development studies for each of the conditions related to his disease (his related nois in views and estimated to his disease (his related nois).
- / /	77_Core outcome set (COS) development studies for each of the conditions related to hip disease/hip-related pain in young and active adults

	Qualitative feedback
	There were no qualitative feedback
78	78_Research studies into the utility of HAGOS and iHOT instruments in a non-surgical treatment context
	Qualitative feedback
	• I am not sure if I understand this question properly. The HAGOS questionnaire has adequate measurement qualities for active patients with long-standing hip and/or groin pain. We have
	used both questioners for non-surgical and surgical pts
	Not confident that I fully understood the question
79	79_Studies to analyse of content and structural validity, and the relationship between individual measurement error and the minimal clinically
	important change for the recommended PROMs.
	Qualitative feedback
	Need to validate the PROMs first
	• This is linked to need for education for patients above - if patients are better educated; they may produce better self-reporting.
	• Happy that this is needed - prefer to leave level of priority to the ENHR process
	Influenced by scores from other respondents
	 Having followed weblinar; I durik that it is important. Lam not sure: the MIC is that important. Lam more into PASS
	 Important perspective of other colleagues to more clearly delineate.
80	$\frac{80}{10}$ Studies to investigate the impact of the diagnostic components of a specific hip condition on diagnostic or prognostic thinking (e.g.
	stratifying nations into high and low risk) in young and active adults
	Ouglitative feedback
	Stratifying nations in this way has some methodological challenges
	 I think the diagnostic and prognostic thinking needs further improvement prior to this
	• Influenced by scores from other respondents
	• I was worried that the stratification process can falsely label patients as potential non-responders until we have clear prognostic indicators I would prefer to avoid stratification research.
81	81_Studies to develop and validate diagnostic and prognostic models for the different hip diseases presenting with hip-related pain in young
	persons
	Qualitative feedback
	• Important in the future- not yet
	influenced by scores from other respondents
	• Having followed webinar; I think that it is important.
82	• Other issues more important.
02	82_Studies to investigate the additional benefit of advanced imaging (e.g. magnetic resonance imaging and/ or computed tomography scan)
	for diagnosis of hip disease presenting with hip-related pain in young and active adults
	Qualitative feedback
	Still less relevant than diagnostic/prognostic studies but economics hard to avoid
	Influenced by scores from other respondents
	• Having ionowed wedinar; I think that it is important.

83	83_Studies to investigate the additional benefit of advanced imaging (e.g. magnetic resonance imaging and/ or computed tomography scan)
	for agreeing on an appropriate treatment strategy for hip disease presenting with hip-related pain in young and active adults
	Qualitative feedback
	We need to better select treatment options for patients and imaging may assist this process
	Influenced by scores from other respondents
	Having followed webinar; I think that it is important.
	• Minor adjustment
	• I do not trink we should but as much effort in imaging as an important factor for prognosis.
	Global view and reading more in the interature New literature
84	84 Studies to investigate the additional benefit of advanced imaging (e.g. magnetic reconance imaging and/or computed tomography scan)
	and sto investigate the additional benefit of advanced magning (e.g., magnetic resonance magning and/or computed tomography scan)
	for prognosis of hip disease presenting with hip-related pain in young and active adults
	Qualitative feedback
	• Having followed webinar; I think that it is important.
	• Reconsidered
	Initianced by scores from other respondents Minor adjustment
	• Global view and reading more in the literature
85	85 Studies to investigate cost-effectiveness of different diagnostic and therapeutic approaches in conditions affecting the young person's hin
	Oualitative feedback
	• In one way I think cost should not come into this but in practice if it means eg an institution can/cannot afford imaging equipment that will have a huge impact on its ability to diagnose
	and treat patients.
	• I think this statement is to vague
	Second webinar information