# **AVSTS Research Cooperative (ARC) algorithm**

### For provisional first authors and provisional co-authors

Step	Procedure	Notes
1	Application to process. Online form(s), email to Ian Nicholson	Submitting vet must be AVSTS member, and has the opportunity to be first author (but may lose this! See later). Confidentiality: provisional first author signs agreement to act within the spirit and letter of the ARC process outlined in this document, and to maintain strict confidentiality at all times
2	IN checks all in order (bounce back to authors if not) and emails application forms to Nick Jeffery and Mark Holmes	
3	NJ MH IN review application and appraise. What question is being asked? Is the proposed idea the best way to answer that question?	Majority vote if there are any controversial issues that can't be sorted by discussion
4a	NOT ACCEPTED: IN emails/calls primary author with reasons/comments and invites reapplication	Back to square 1.
4b	ACCEPTED: Authors revise Ethical Review forms and send to IN. IN emails to Ethical Review	Ethical review panel = AHT
5a	If NOT ACCEPTED (Ethical review): authors revise plan, with input from NJ/MH/IN and AHT, until project is ethically, clinically and scientifically appropriate	
5b	If ACCEPTED then need to recruit potential co- authors at other centres as appropriate	Provisional first author will have stipulated criteria for centre inclusion in their submission (such as personnel or equipment requirements ie cert/dip holder, CT scanner, etc). The people involved are to be provisional co-authors (they can in certain circumstances lose their co-authorship and just be acknowledged in the paper (see later))
6a	IN to forward project submission to other centres, inviting feedback	Once feedback collated any major changes would need ratification from MH/NJ/AHT
6b	Possible resubmission to Ethical Review panel if significant changes are made	Back to 5b
7	Realistic timeline created by provisional first author, centres, and IN. Provisional first author provides IN with draft write-up of Introduction, Materials and Methods including statistical testing, and PDFs of all references	See below for reasons behind this
9	Data anonymity: Each centre/provisional co- author allocated a code by Alison Young (AVSTS Secretary) or other 3rd party, who keeps a list of centre codes and who is the only person who knows this information. AY not involved in data analysis.  Data gathering begins	
<i>3</i>	Data Rathering negins	

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# For provisional first authors and provisional co-authors 10 Data anonymity and security: Data tables coded IN to keep a copy of the raw data for

10	Data anonymity and security: Data tables coded by each centre and emailed to AY, who removes any identifying information (ie email address) and sends them (coded) to IN, who saves copies of the raw data on a separate hard drive and forwards raw data on to the provisional first author	IN to keep a copy of the raw data for reasons below. Provisional first author already signed up to an agreement to play by these rules
11	Early review, if appropriate. Data reviewed by provisional first author (with input from MH/NJ if required) after 1-6 months to ensure appropriate information is being gathered.	Any major problems will need authors, NJ/MH/IN to review findings and restart project
12	Study closed once aims achieved. Completed data tables coded by each centre emailed to AY, and all owner consent forms also sent in (or scanned and emailed)	
13	Data analysis by provisional first author.	NJ and MH to assist if required/available. Funding for this should be planned. Each centre's data will need to be compared to the other centres' data during data quality assessment. The results of this comparison will be sent to each centre confidentially at the end of the study
14	Writing up of study. Provisional first author produces first draft of study within 2 months of close of study, sent to IN. If 1st draft is not forthcoming then the first author is demoted to second author, and the centre which provided the most data (AY to determine) has the opportunity to take the data, intro, M+M and references and produce a draft themselves as first author, having signed and returned a confidentiality agreement beforehand. If they are not keen then the second largest provider of data has the chance, and so on. If no-one else is keen then IN to write up as first author	hence the reason for keeping the raw data and having the intro, references and M+M already provided.  NB: NJ/MH/IN to be considered for inclusion as co-authors depending on contribution
15	Review of manuscript by provisional co-authors: first draft sent by IN to all the centres involved, for comment, sent back to IN within 3 weeks. After 3 weeks the first author receives all the feedback from IN and produces second draft. Any provisional co-author failing to provide feedback will be "demoted" to an acknowledgement rather than a co-author. This second draft must be sent to IN within 3 weeks otherwise the process in 14 above will start again and the provisional first authors lose their first authorship, which will be taken up by whichever co-author wishes to write this up, in order of amount of data submitted, having signed the confidentiality agreement and agreement to adhere to the process outline in this document. 2nd draft commented upon by provisional co-authors (not those "demoted to	IN to police this process, with the President of AVSTS (the Supervisor, currently Dan Brockman) acting as back-up

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15	Review of manuscript by provisional co-authors:	IN to police this process, with the
	first draft sent by IN to all the centres involved, for	President of AVSTS (the Supervisor,
	comment, sent back to IN within 3 weeks. After 3	currently Dan Brockman) acting as back-
	weeks the first author receives all the feedback	up
	from IN and produces second draft. Any	
	provisional co-author failing to provide feedback	
	will be "demoted" to an acknowledgement rather	
	than a co-author. This second draft must be sent	
	to IN within 3 weeks otherwise the process in 14	
	above will start again and the provisional first	
	authors lose their first authorship, which will be	
	taken up by whichever co-author wishes to write	
	this up, in order of amount of data submitted,	
	having signed the confidentiality agreement and	
	agreement to adhere to the process outline in this	
	document. 2nd draft commented upon by	
	provisional co-authors (not those "demoted to	
	acknowledgements" already) within 3 weeks	
	otherwise further co-authors "demoted to	
	acknowledgements". This cycle is repeated until	
	the draft manuscript is suitable for submission.	
16	Submission to journal by first author, with co-	
	authors and acknowledgements made	
	appropriately	
17	First author sends reviewers' comments to IN, to	
	distribute to all co-authors. Co-authors have the	
	opportunity to comment and respond as they see	
	fit. First author produces second draft and	
	response to reviewers' comments, and sends to IN	
	who distributes to co-authors. All co-authors must	
	respond and comment, otherwise they are	
	demoted to acknowledgements. First author	
	collates all comments, redrafts and resubmits.	
18	Redrafting and resubmitting continues, with	
	attrition of co-authors and gaining of	
	acknowledgements, until publication is accepted -	
	list of co-authors and acknowledgements MUST	