Report of NIAA Task and Finish Group on Equality Diversity and Inclusivity

Author: NIAA Equality Diversity and Inclusivity Task and Finish Group
(see appendix for membership)

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Contents

I. Executive Summary

The Equality, Diversity and Inclusivity Task and Finish Group (EDI T&F) was convened at the request of the Board of the National Institute for Academic Anaesthesia (NIAA) to consider relevant issues and make recommendations for NIAA partners and associated organisations. To that end, we propose 15 recommendations. It is the responsibility of the NIAA Board, and the Boards and Councils of its partner organisations to provide a response to these recommendations.

The membership of the group was chosen by the Chair with the input of NIAA Board members, to represent a diversity of experiences (trainees, consultants, clinicians, career scientists) geographical location, both sexes, international medical graduates and specific representation from the four founding NIAA partners: Association of Anaesthetists (AoA), Royal College of Anaesthetists (RCoA), *Anaesthesia* journal and *British Journal of Anaesthesia* (*BJA*).

Throughout this document, we have referred to 'gender', rather than sex. The definition of gender is that of a non-binary social construct where an individual can identify as masculine, feminine, fluid, trans or none. Sex is a biological definition based on chromosomal characteristics, and therefore would be male (XY), female (XX) or intersex (various other combinations of X, Y and 0 chromosomes). In this document, we refer to gender as we are discussing identity: in our recommendations relating to data capture, we recommend collecting data based on gender identity (self-declared by respondents) rather than actual or assumed biological sex. However, the spirit of the document, is such that we aspire to address issues relating to either gender and/or sex, as well as other protected characteristics.

During our discussions, it emerged that additional perspectives, particularly from the Lesbian, Gay, Bisexual, Trans, Questioning and "plus"[1] (LGBTQ+) community, would be helpful; the Chair subsequently sought this informally from colleagues, and their feedback has been incorporated into this document. One outcome of these informal discussions was the understanding that while it is critically important to strive for equality, diversity and inclusivity regarding all protected characteristics, different approaches might be required when reporting personal characteristics other than gender, and when seeking data to help understand whether inequalities exist and tracking progress over time. Put more simply, apparent biological sex or gender are usually obvious to any observer, whereas sexual preference, disability (particularly mental health), marital and parental status may not be. Individuals may prefer to retain their privacy over these characteristics. Therefore, we are likely to require different approaches to address potential or actual issues of inequality for gender, versus other protected characteristics. These may include qualitative approaches rather than quantitative, and this is reflected in our recommendations.

[1] "Plus" represents other sexual identities including pansexual, asexual and omnisexual

We have not touched on issues related to social mobility. We have discussed potential geographical barriers to academic engagement and made some suggestions as to how these may be evaluated and addressed. However, we have not discussed issues regarding socioeconomic background and how this might affect academic attainment for those who have a primary medical or science degree and may wish to pursue a research career. Understanding how social mobility issues might continue to impact on career progression for anaesthetists / anaesthesia scientists later in their careers may be an area for the NIAA to consider further work in (final recommendation).

Finally, it is important to state that this guidance supports the ambition of reaching ***equality of opportunity***, ***not equality of outcome***. To that end, monitoring the structures and processes may be considered more important than monitoring outcomes, but both are, in our view, necessary.

SR Moonesinghe, Chair

for the NIAA Equality Diversity and Inclusivity Task and Finish Group, Feb 2020

(See appendix 1 for membership)

Recommendations

For NIAA grant funding partners or those who offer academic awards

(e.g. society or eponymous Professorships)

1. **Establish project grant funding streams aimed exclusively at early career researchers.** In these funding streams, senior researchers would be excluded from being Principal Applicants, but encouraged to play a supporting role.

2. **Establish grant funding streams aimed exclusively at candidates who have** at any point in their anaesthesia career (for clinicians or clinician scientists) or research career (for career scientists) **taken (a) period(s) of personal leave or worked less than 0.8FTE for a period of greater than 12 months.** This would include parental, carer or sick leave, and other types of extended leave at the discretion of the grant decision-making panel.

3. **Revisit the criteria for larger, career development awards for clinician scientists (such as the *BJA* and BOC career development grants) to benefit researchers throughout their career pathways**, rather than focusing on those on doctoral students or those on the verge of a Chair appointment (as currently stated). The rationale is to support academic anaesthetists in the early postdoctoral / independent research career stage as well as at other important transition points, as they may not compete favourably for external awards with candidates from other specialties at the same point of clinical career development (due to the tendency for anaesthetists to start their research careers later). Removing the requirement for the candidate to be close to a Chair may also remove barriers to engagement by those from NHS rather than University backgrounds.

4. **Ensure that assessment criteria for career development awards consider non-work-related issues which may have impacted on career progression to date – e.g. breaks for parental, carer, sick leave or other personal reasons.** This would include avoidance of the use of metrics which penalise late-starters, those who have taken career breaks or work less-than-full-time (e.g. h-index). All career development awards should make it clear that less than full time working is acceptable.

5. **Establish (or converting existing) honorary awards (e.g. Macintosh, Featherstone and DAS Professorships etc.) aimed specifically at individuals who have less than 0.25WTE funded academic time in their job plans.** This aims to support the career development of those who may work outside of research supportive or experienced institutions thereby addressing geographical inequalities we believe may be present.

6. **Provide mentoring for new grant reviewers** to encourage early career researchers to engage in the peer review process.

7. **Table "equality, diversity and inclusivity' as an agenda item** for every NIAA grant review committee, to keep it in the forefront of people's minds.

For Research Journals

8. **Ask for a statement (according to a pre-specified template) in every submitted manuscript which describes the gender make-up of the team** – e.g.

   "This manuscript has 6 authors; of these one is female; one prefers not to say; the first, senior and corresponding authors are all male".

   The statement is not intended to be form part of the peer review process, but simply to bring these issues to the foreground of authors, reviewers and editors.

   Please note: *There was equipoise between the members of the working group regarding whether this statement should be published at article level, or whether the data should simply be collated by the journals for annual (or more frequent) review.*

For NIAA partners involved with organisation of conferences and meetings

9. **Commit to addressing issues of equity, diversity and inclusivity in conference programming and conference/course delivery (delegate experience).** Examples of meaningful commitments would include:
   a. striving for diversity of speakers in every regard at major meetings, including gender, geography, etc.
   b. provision of facilities to encourage attendance from delegates and speakers with babies or children
   c. establishing a code of conduct for both delegates and speakers which takes a stand against behaviours which are discriminatory or constitute bullying, harassment, intimidation or undermining
   d. issuing guidance to speakers and moderators which remind them of the need to be sensitive to the perspective of people from diverse backgrounds when preparing and delivering conference content, while being respectful of the rights of all individuals to freedom of expression and freedom of speech

For the NIAA Board

10. **Commit resources (leadership, administrative and financial support) to monitoring progress** towards achieving the recommendations in this document (i.e. monitoring structures and processes)

11. **Commit resources to gathering data from all relevant stakeholders** (e.g. National Institute for Health Research (NIHR), Universities, NHS Trusts, NIAA partners) to establish the baseline situation and monitor subsequent progress regarding gender equity issues in academic anaesthesia (i.e. monitoring outcomes). This might include, but is not limited to establishing and publishing the gender profiles of
    a. board / council members of NIAA partners
    b. conference speakers and moderators
    c. individuals in academic posts, including part-funded, local fellowships
    d. individuals receiving NIAA, charitable, NIHR and Research Council grants
    e. authorship lists for research papers both accepted and rejected
    f. peer reviewers participating in grant and manuscript review processes
    g. those contributing to decision making for NIAA grant awards

12. **Commit to qualitative research** which would evaluate whether people with other protected characteristics, particularly those from the LGBTQ+ community, experience discrimination which impedes their participation or attainment in academia.

13. **Commit to research exploring geographical inequality of opportunity.** This might include quantitative comparison of the number of Out of Programme (OOP) placements for research by region, semi-structured and anonymised interviews with trainees and trainers / programme directors and anonymised surveys.

14. **Consider research evaluating whether social mobility is an issue in anaesthesia and anaesthesia research more specifically**. This might include research regarding socioeconomic background (pre-higher education), secondary education (e.g. state vs. private schooling), family background (parents' occupations and educational attainment) etc. Such data would need to be compared with other specialties and with the population of medical and non-medical science graduates more generally.

15. **Develop and centrally coordinate a national initiative to be delivered by Universities, NHS Trusts and other relevant organisations to showcase academic anaesthesia role models** from diverse backgrounds.

II. Introduction

The NIAA Board agreed to undertake some work to evaluate its role in supporting equality, diversity and inclusivity in academic anaesthesia. To that end, a task and finish group was established, which would develop recommendations to be provided to the NIAA Board for approval and from there to relevant stakeholders for consideration and response.

The focus of the group was to discuss and propose solutions to issues of opportunity for those who are either:

- clinicians (trainees, consultants, career grade doctors, and other healthcare professionals involved in anaesthesia, perioperative medicine, pain or critical care (APOMP-CC)[ii] who might want careers which include a proportion of their career to be in academia; or
- career scientists in academic anaesthesia, perioperative medicine, pain or critical care (i.e. non-clinicians)

The group focused on the following areas:

- consideration of current knowledge, including acknowledgement of areas where there is a paucity of data to inform us
- considering proposals aimed at ensuring equality of opportunity rather than equality of outcome (i.e. positive affirmation rather than positive discrimination)
- evaluating areas of need for our community, outside the standard list of protected characteristics – most notably, geographical diversity

[ii] For the sake of brevity – throughout this document, APOMP-CC and anaesthesia are used interchangeably

III. Rationale for developing recommendations for the NIAA

The NIAA, and its constituent partners, has a number of roles which provide opportunities to influence policy, structures and processes which may influence whether we achieve equality of opportunity for anyone wanting to undertake research in anaesthesia, perioperative medicine, pain and critical care.

1. Governance Roles

The NIAA and its constituent partners (e.g. journals, RCoA, AoA) has governance responsibility (wholly or in part) for these strategically important national endeavours:

- **The Perioperative Medicine Clinical Trials Network (POMCTN)**
  - to develop people to develop, deliver and lead clinical trials (locally and nationally)
  - to coordinate clinical trials development and delivery to maximise recruitment, value for money and benefit for patients
- **The Health Services Research Centre (HSRC)**
  - to deliver national HSR programmes for the APOMP community
  - to develop research active trainees and future research leaders through its fellowship programme
  - to support clinician engagement in research through citizen science endeavours
- **The NIAA grant awards process**
  - to support research through funding for specific projects
  - to support research through career development funding for early (*BJA*/MRC doctoral fellowships; John Snow undergraduate awards), and mid-career (British Oxygen Company (BOC) award; previous *BJA*/RCoA career development grants)

2. Influencing role with NIAA Partners

In addition, it has the opportunity to provide research-relevant recommendations which may be considered by its constituent partners:

- **The Royal College of Anaesthetists**
  - relevant activity includes:
    - delivery of courses and meetings
    - oversight of clinical training programme and curriculum development
    - approval of out of programme applications for trainees
    - support for research fellowships linked to RCoA/HSRC projects e.g. NELA, PQIP, SNAPs
    - College honours and awards including lectureships

- **The Association of Anaesthetists**
  - relevant activity includes:
    - delivery of courses and meetings
    - grant funding including peer review
    - Research and Grants Committee which sets out research priorities for AAGBI
    - Association honours and awards including lectureships
- **The *British Journal of Anaesthesia***
  - relevant activity includes:
    - editor positions and editorial boards
    - trainee editorial fellowships
    - peer reviewed publication
    - grant funding including peer review
- ***Anaesthesia* Journal**
  - relevant activity includes:
    - editor positions and editorial boards
    - trainee editorial fellowships
    - peer reviewed publication
    - grant funding including peer review
- **The specialist societies**
  - research relevant activity includes:
    - delivery of courses and meetings
    - grant funding including peer review
    - awards of honorary professorships (e.g. DAS Professorship)

3. Leadership role in academic anaesthesia community

Finally – the NIAA is the main organisation for bringing together current and potential future academic anaesthetists and non-clinician academics who undertake research and education delivery in our clinical fields. As such, it may have a role to play in galvanising our community into action, alongside other endeavours such as the University-based Athena SWAN initiative (appendix 2) and various initiatives within the NHS to promote women in senior leadership and management roles.

IV. Summary of relevant issues

1. Potential sources of lack of equality and diversity in academic anaesthesia

i. Prejudice against those with protected characteristics

a. Age
b. Disability
c. Gender reassignment
d. Marriage and civil partnership
e. Pregnancy and maternity
f. Race
g. Religion or belief
h. Sex
i. Sexual orientation

ii. Inequity of access to opportunity to participate in research

a. Geographical

i. physical distance to hubs of research activity – particularly relevant for those who would potentially engage in lab research but potentially relevant even for health services research/clinical trials etc.
ii. Variation in opportunities to access institutional funding for research e.g. NIHR biomedical research centres

b. Cultural

i. Anecdotally, individual training programmes, hospitals and anaesthetic departments are perceived to have different attitudes to the benefits of research participation – e.g. UCL and Southampton highly supportive; many (notably not all) district general hospitals much less so. It is unclear whether this (a) true; (b) if true, whether it is due to systemic issues at hospital or regional level (perhaps due to service pressures or lack of a research supportive 'culture') or due to attitudes and behaviours of specific individuals with decision making powers.

iii. Wider societal issues (both within and external to APOMP-CC)

a. Financial

i. Lack of pay progression for people who take time out of work for personal reasons (carers leave, parental leave) – may discourage people from taking further time out / extending training to do research
ii. Lack of pay progression for people who work less than full time for personal reasons (e.g. parental responsibilities) - may discourage people from taking further time out / extending training to do research

iii. Impediments to career progression for those working less than full-time or who have taken career breaks for personal reasons

iv. Research activity and participation may not be considered as financially advantageous as (for example) independent practice – this is particularly an issue for individuals at consultant level who would potentially undertake research activity outside their job plan.

b. Cultural / social

i. Good evidence that women and those from BAME backgrounds are less likely / need more encouragement to apply for promotions, awards etc. This is particularly relevant when considering the issues around later career progression and pay compensation through Clinical Excellence Awards etc., which are a potential benefit of academic life, over (for example) independent practice.

ii. Lack of role models, mentorship and leadership from 'minority groups' – e.g. women, ethnic minorities, LGBTQ+, district general hospitals, non-'big 5' universities

iii. An additional, tangential issue, is discriminatory workplace attitudes and behaviours, for example:

- commentary or behaviours giving the perception of academia as a hostile, perhaps unfairly competitive environment which then dissuade early career colleagues from pursuing academic opportunities *("I'm not / (s)he is not 'cut out' for it."*)
- commentary or behaviours giving the perception that a career in academia is not compatible with a healthy work-life balance therefore leading individuals who might have otherwise considered a research career to discount it
- other types of discriminatory behaviours ranging from discriminatory or derogatory comments in lectures, bullying and undermining, through to sexual harassment. The last of these may particularly be an issue at conferences where alcohol and a 'school's out' atmosphere may lead to unwanted behaviours. This may dissuade early career researchers of any gender, but potentially particularly females, to avoid such meetings, or leave them with negative experiences. Almost every member of the working group had witnessed such interactions or been a confidant for someone who had had such a negative experience. These issues are also increasingly discussed on social media (for example the social media furore over a lecture and panel discussion at the World Airway Management Meeting 2019, and comments made during a debate at the Critical Care reviews meeting in Jan 2020). In other parts of the world, e.g. Australia, several academic societies have taken positive action to try to address this problem, by developing codes of conduct for meetings and conferences (appendix 3)

iv. In academia, an additional issue is opportunity related to socioeconomic group (social mobility challenges). Recent data from the National Education Opportunities Network

(NEON)[iii] suggests that the those least likely to attend university are white men from the lowest socioeconomic groups – even less likely than black or Asian men or women. How such issues might affect the later (and therefore academic) careers of those who have been able to overcome socioeconomic disadvantage and reach university, is unknown in medicine generally, and in academic anaesthesia specifically.

2. *Potential hurdles to APOMP-CC clinician scientists and career scientists developing research careers*

Figure 1 (below) outlines some of the hurdles and bottlenecks to academic progression which are common to all academics but may be more of a problem to APOMP-CC clinician researchers and then in particular to those with protected characteristics. These fall into several themes, many of which could be addressed by the NIAA and its partners.

There is increasing high quality evidence of some of these issues being particularly challenging for women. For example, the *Lancet* women's edition published in Feb 2019 highlighted the outcomes of a natural experiment where the assessment criteria for a highly competitive state-funded grant programme were changed. The peer review outcomes of the programme which evaluated predominantly the best research proposal, women and men were awarded grants in approximately equal measure. However, in a separate programme which focused predominantly on the applicants' career profiles, men were 40% (relative risk) more likely to be awarded a grant. [1] This analysis, and an accompanying editorial, [2] both discussed potential reasons for this, and focused on two themes. The first is true gender bias which may be explicit (deliberate sexism) or implicit (unintended bias, which interestingly is more likely to happen when individuals are put under time pressure, have limited information and when the 'stakes are high' – all of which may features of peer review processes conducted by busy people as a community service). The second potential reason is systemic bias, which favours people as a result of accumulated benefit which may have had its origins in explicit or implicit bias. The hypothesised example given in the editorial [2] is of two equally able researchers at the beginning of their careers, one male, one female: the male benefits from implicit bias early in his career, which then later translates into true advantage over the female candidate (as a result of an early 'leg-up' he has more grants awarded, therefore has the funding to develop a bigger research group, and therefore publishes more papers) – success begets success.

[iii] https://www.educationopportunities.co.uk/news/new-report-shows-differences-in-white-working-class-students-going-to-university-by-higher-education-provider/

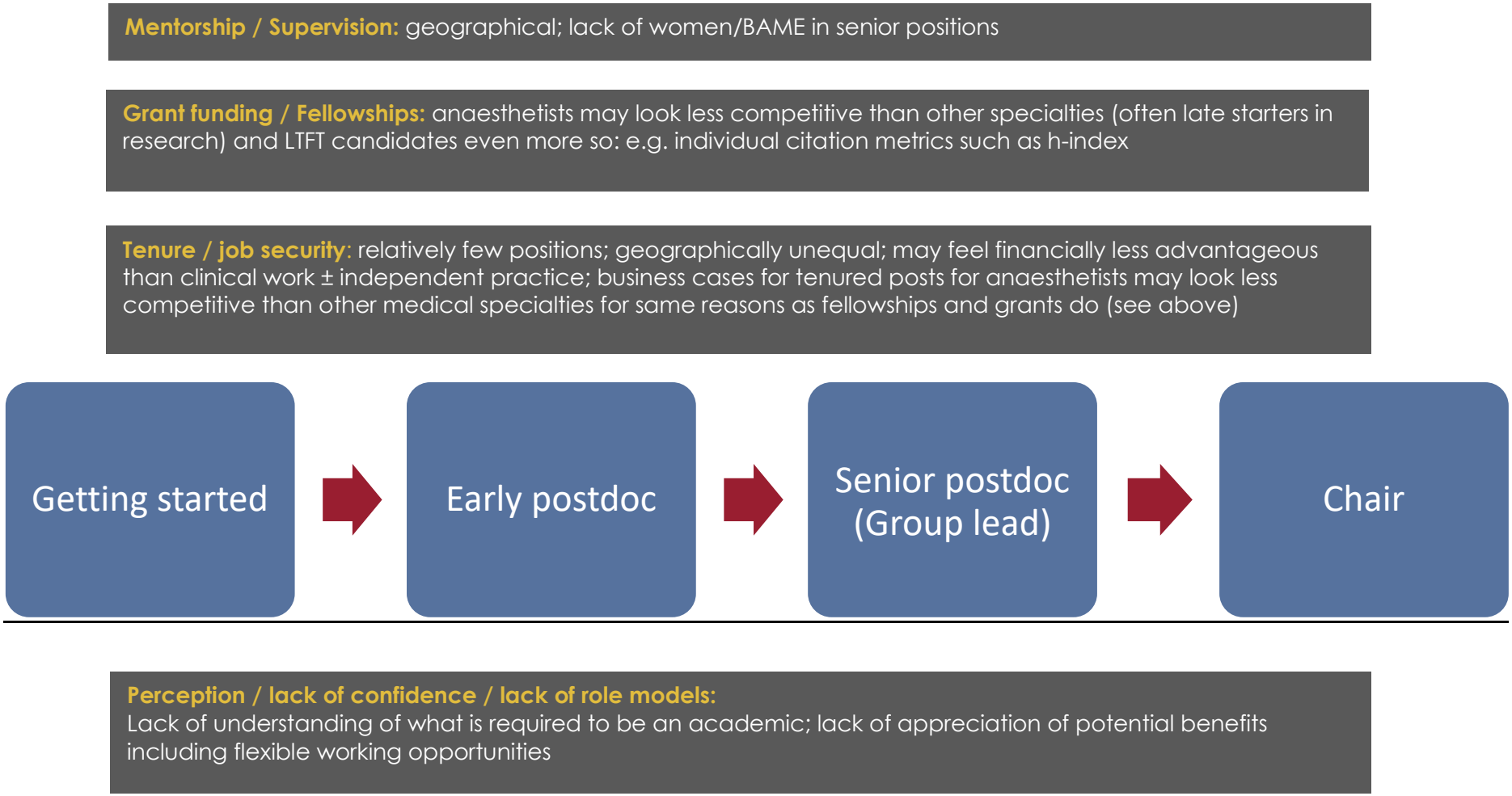

Figure 1: *Potential hurdles to career progression in academic anaesthesia which may particularly affect those with protected characteristics*

In anaesthesia, we have additional valuable information from a recent review of NIAA grant awards – women were much less likely to apply for grants (76% of main applicants were men) but there was no difference between men and women in success rates. [3] Optimistically, this may point to less true gender bias in the review process but does highlight the problem that women may be less likely to engage with research. Therefore, processes which address barriers to engagement and actively encourage women to get involved with anaesthesia research may be of value.

3. *Current landscape*

i. Positive steps in anaesthesia / anaesthesia research

Research and Audit Federation of Trainees (RAFT) and trainee research networks

Grass roots initiative (led by trainees, for trainees) which supports delivery of network research, audit and QI activity, aiming to overcome barriers to research participation for 'non-academic' trainees – e.g. inequity of access related to geography; rotational placements; time, money.

Challenges include the colossal effort it takes to complete (to publication stage) research projects while in full-time training. In addition, the opportunities for such trainees to transition into a consultant career involving research are unclear.

ii. Positive steps in wider context

Athena SWAN initiative

Universities are evaluated on their adherence to the Athena SWAN charter (appendix 2). This process has recently been given greater 'bite' by the NIHR's commitment to not providing programme funding (e.g. ACF/ACL posts) to departments and organisations which are not achieving at least Athena SWAN silver status.

Athena SWAN reports which are submitted for evaluation include (for example):

- detailed metrics on staffing and student ratios (based on sex, ethnicity etc) and new appointments and leavers
- support for promotions
- support and outcomes of return to work after career breaks (e.g. carer, parental)
- HR policies
- general policies which promote (or otherwise) the opportunity for flexible working and achieving work-life balance for those with carer responsibilities
- case studies
- results of staff surveys
- some self-evaluation of culture

Bibliometrics

A number of international initiatives such as the San Francisco Declaration on Research Assessment; the Leiden Manifesto for Research Metrics and the *Metric Tide* report are recommending that the scientific community re-thinks its approach to citation metrics. This is predominantly driven by 'open science' principles, but another key driver is supporting improving fairness in how research quality (both of scientific reports themselves and the researchers who publish them) is assessed. One particular area which has been highlighted is the need to avoid metrics which are convenient to apply but are not necessarily fair, transparent or valid – e.g. individual researcher' h-index which disadvantages particular disciplines, younger people, people who came to research later in their careers; people who have taken career breaks or breaks from research activity.

Women and people from BAME backgrounds in management and leadership in the NHS in general

There is currently a lot of quite diverse activity to both highlight the issues e.g.:

- gender pay gap
- lack of diversity in senior management and leadership roles
- disproportionately low numbers of female doctors applying for Clinical Excellence Awards)
- and to take positive action e.g.:
- efforts to address not just the inequalities and their causes through affirmative action, but also highlighting the positive impact of a diverse and representative leadership and management composition
- promoting the 'buddy' concept (that you don't have to be female or from a BAME or other minority background to want to support and mentor people who are from those backgrounds).

V. Recommendations

For NIAA grant funding partners

1. **Establish small project grant (£<100K) funding streams aimed exclusively at early career researchers**. Early career researchers may frequently be the true main applicant for grants but senior supervisors may be listed as PIs as this is viewed more favourably by grant review committees – this is a practice which should be discouraged, as it is unfair to the primary applicant, and there is significant benefit to early career researchers being able to put that they were a grant PI on their CVs. in these awards, senior researchers should be excluded from being Principal Applicants, but encouraged to play a supporting role, and the proposed level of support could be assessed as part of the application.

2. **Establish grant funding streams aimed exclusively at candidates who have at any point in in their anaesthesia career or current specialty (for clinicians or clinician scientists) or research career (for career scientists) taken personal leave for greater than 12 months or worked less than / equal to 0.8FTE for a period of greater than 12 months.** This would include parental, carer or long-term sick leave, or other leave at the discretion of the grant reviewing panel. The aim of this recommendation is to address inequalities which exist due to parental or carer responsibilities, or other personal challenges, and potentially to further the national societal drive to encourage parents to take maternity and paternity leave more equally.

3. **Revisit the criteria for larger, career development awards for clinician scientists (such as the *BJA* and BOC career development grants) to benefit researchers throughout their career pathways**, rather than focusing on those on doctoral students or those on the verge of a Chair appointment (as currently stated). The rationale is to support academic anaesthetists in the early postdoctoral / independent research career stage as well as at other important transition points, as they may not compete favourably for external awards with candidates from other specialties at the same point of clinical career development (due to the tendency for anaesthetists to start their research careers later).

4. **Ensure that assessment criteria for career development awards consider non-work related issues which may impact on career progression to date** – e.g. breaks for parental, carer, sick leave or other personal reasons. Avoid use of metrics which penalise late-starters or those who have taken career breaks or work less-than-full-time (e.g. h-index).

5. **Establish (or converting existing) honorary awards** (e.g. Macintosh, Featherstone, DAS etc) aimed specifically at individuals who have less than 0.25WTE funded academic time in their job plans. This

aims to support the career development of those who may work outside of research supportive institutions thereby addressing geographical inequalities we believe may be present.

6. **Provide mentoring for new grant reviewers** to encourage early career researchers to engage in the peer review process.

7. **Table "equality, diversity and inclusivity' as an agenda item** for every NIAA grant review committee, to keep it in the forefront of people's minds.

For Research Journals

8. **Ask for a statement (according to a pre-specified template) in every submitted manuscript which describes the gender make-up of the team** – e.g.

   "This manuscript has 6 authors; of these two are female; one preferred not to say; the first, senior and corresponding authors are all male".

The statement is not intended to form any part of the decision-making process for research manuscripts, but is intended to provide transparency for readers over the gender issue, enable easy auditing by the journals, and to make both authors and readers actively think about this issue as it is easily overlooked. This is particularly important for types of article which are easily used to support more junior colleagues and a diverse range of individuals (e.g. reviews, editorials, consensus statements).

There was equipoise amongst the task and finish group about whether this data should solely be collated and reported at aggregate level by the journals at regular intervals (e.g. annually) or whether in addition to this, the data should be published at the end of each manuscript.

For NIAA partners involved with organisation of conferences and meetings

9. **Commit to addressing issues of equity, diversity and inclusivity in conference programming and conference/course delivery (delegate experience).** Examples of meaningful commitments would include:
   b. striving for diversity of speakers in every regard at major meetings, including gender, geography, etc.
   c. provision of facilities to encourage attendance from delegates and speakers with babies or children

d. establishing a code of conduct for both delegates and speakers which takes a stand against behaviours which are discriminatory or constitute bullying, harassment, intimidation or undermining
e. issuing guidance to speakers and moderators which remind them of the need to be sensitive to the perspective of people from diverse backgrounds when preparing and delivering conference content, while being respectful of the rights of all individuals to freedom of expression and freedom of speech

For the NIAA Board

Lack of data on issues related to equality and diversity in academic anaesthesia has been a significant hindrance to this work. To that end, we make the following recommendations:

10. **Commitment of resources (leadership, administrative and financial support) to monitoring progress towards achieving the recommendations in this document** (monitoring structures and processes)

11. **Commitment of resources to gathering data from all relevant stakeholders** (e.g. NIHR, Universities, NHS Trusts, NIAA partners) to establish the baseline situation and monitor subsequent progress regarding gender equity issues in academic anaesthesia (i.e. monitoring outcomes). This might include, but is not limited to establishing and publishing the gender profiles of:
    a. board / council members of NIAA partners
    b. conference speakers and moderators
    c. individuals in academic posts, including part-funded, local fellowships
    d. individuals receiving NIAA, charitable, NIHR and Research Council grants
    e. authorship lists for research papers both accepted and rejected
    f. peer reviewers participating in grant and manuscript review processes
    g. those contributing to decision making for NIAA grant awards

12. **Commitment to qualitative research** which would evaluate whether people with other protected characteristics, particularly those from the LGBTQ+ community, experience discrimination which impedes their participation or attainment in academia

13. **Commitment to research exploring geographical inequality of opportunity.** This might include quantitative comparison of the number of OOP placements for research by region, semi-structured and anonymised interviews with trainees and trainers / programme directors and anonymised surveys.

14. **Consider research evaluating whether social mobility is an issue in anaesthesia and anaesthesia research more specifically**. This might include research regarding socioeconomic background

during childhood and adolescence, secondary education (e.g. state vs. private schooling), family background (parents' occupations and educational attainment) etc. Such data would need to be compared with other specialties and with the population of medical and non-medical science graduates more generally.

Given its role in national leadership, we make the following final recommendation for action by the NIAA Board and the Boards of its partners:

15. **Development and central coordination of a national EDI initiative** for academic anaesthesia, to be delivered by Universities, NHS Trusts and other relevant organisations to showcase role models from diverse backgrounds. Examples of what this initiative might involve include:
    a. Inviting senior academic anaesthetists / anaesthesia scientists to provide **case studies and narrative** about their approaches (current and planned) to addressing equality, diversity and inclusivity in their home departments and any regional or national groups they are involved with or lead (e.g. POM-CTN, HSRC; NIAA; NIHR-SG; consensus guideline groups; specialist societies; organisations which run educational events such as Association of Anaesthetists, RCoA, EBPOM, Drs Updates etc.)
    b. **Showcasing of positive role models based on:** protected characteristics; geographical situation; NHS rather than University appointment; career grade (focus on early and mid-career, post-doc or early consultant years); socioeconomic background

References

1. Witteman HO, Hendricks M, Straus S, Tannenbaum C. Are gender gaps due to evaluations of the applicant or the science? A natural experiment at a national funding agency. Lancet. 2019;393:531-540.
2. Raymond JL, Goodman MB. Funders should evaluate projects, not people. Lancet. 2019;393:494-495.
3. El-Boghdadly K, Docherty AB, Klein AA. Analysis of the distribution and scholarly output from National Institute of Academic Anaesthesia (NIAA) research grants. *Anaesthesia*. 2018;73:679-691.

Appendix 1: Members of Task and Finish Group

Name	Role / constituency / post	Location (Workplace) and employer
Ramani Moonesinghe	Chair; HSRC Director; *ex officio* NIAA Board member; University Professor (clinical) since 2018; previously NHS	London; UCL
Anne-Marie Docherty	Postdoctoral stage; trainee in anaesthesia/critical care	Edinburgh; Trainee
Helen Galley	Career Scientist; *BJA* Director; University Professor	University of Aberdeen;
Pamela Hines	Coordinator, National Institute for Academic Anaesthesia	London; RCoA
Rashan Haniffa	ST7 trainee in anaesthesia and critical care; NIHR Clinical Lecturer; International Medical Graduate	London; Trainee
Andrew Klein	Editor, Anaesthesia journal; NIAA Board; NHS Consultant	Cambridge; NHS
Helen Laycock	Recent postdoctoral stage; ST7 trainee in anaesthesia and advanced pain	London; Trainee
Iain Moppett	HSRC Deputy Director / *BJA* Board; University Professor (clinical)	Nottingham; University
Katie Samuel	ST7 trainee in anaesthesia (non-academic); Chair, Research and Audit Federation of Trainees (RAFT)	Bristol; Trainee
Tei Sheraton	Consultant anaesthetist; EDI Lead, Association of Anaesthetists; NHS consultant	Gwent; NHS
Joyce Yeung	POMCTN Deputy Director; senior postdoc (clinical)	Birmingham; Warwick University

Appendix 2: Principles of the Athena SWAN Charter

Athena SWAN principles
1. We acknowledge that academia cannot reach its full potential unless it can benefit from the talents of all.
2. We commit to advancing gender equality in academia, in particular, addressing the loss of women across the career pipeline and the absence of women from senior academic, professional and support roles.
3. We commit to addressing unequal gender representation across academic disciplines and professional and support functions. In this we recognise disciplinary differences including the particularly high loss rate of women in science, technology, engineering, mathematics and medicine (STEMM)
4. We commit to tackling the gender pay gap.
5. We commit to removing the obstacles faced by women, in particular, at major points of career development and progression including the transition from PhD into a sustainable academic career.
6. We commit to addressing the negative consequences of using short-term contracts for the retention and progression of staff in academia, particularly women
7. We commit to tackling the discriminatory treatment often experienced by trans people.
8. We acknowledge that advancing gender equality demands commitment and action from all levels of the organisation and in particular active leadership from those in senior roles.
9. We commit to making and mainstreaming sustainable structural and cultural changes to advance gender equality, recognising that initiatives and actions that support individuals alone will not sufficiently advance equality.
10. All individuals have identities shaped by several different factors. We commit to considering the intersection of gender and other factors wherever possible.

Appendix 3: Links to codes of conduct published by other organisations

1. Australasian research Council Centre of Excellence for Mathematical and Statistical Frontiers
   https://acems.org.au/acems-code-of-conduct

2. Statistical Society of Australia
   https://statsoc.org.au/CodeOfConductTemplate

3. R! project conference 2018
   https://user2018.r-project.org/code_of_conduct/

Appendix 4: List of abbreviations

APOMP-CC	Anaesthesia, Perioperative Medicine, Pain and Critical Care
AoA	Association of Anaesthetists
BJA	British Journal of Anaesthesia
EBPOM	Evidence Based Perioperative Medicine Community Interest Company
EDI	Equality, Diversity and Inclusivity
HSRC	Health Services Research Centre
LGBTQ+	Lesbian, Gay, Bisexual, Trans, Questioning Plus
LTFT	Less Than Full Time
NIAA	National Institute for Academic Anaesthesia
NIHR	National Institute for Health Research
POMCTN	Perioperative Medicine Clinical Trial Network
RCoA	Royal College of Anaesthetists
SG	Specialty Group
T&F	Task and Finish