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ABBREVIATIONS

SLGT2 inhibitors- Sodium-glucose co-transporter-2 inhibitors

ISLHT- International Society for Heart and Lung Transplantation

SDs- Standard Deviations

VAD- Ventricular Assist Device

HICs- High-Income Countries

GSH- Groote Schuur Hospital

SA- South Africa

Two decades of recipient and donor referrals for heart transplantation to Groote Schuur Hospital, Cape Town, South Africa: A retrospective study

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ABSTRACT

Background. Heart transplantation in South Africa faces numerous challenges related to organ scarcity and unequal access to advanced heart therapy. There is an urgent need to analyse the current transplant referral pathway to optimise equitable access to transplantation.

Objectives. To provide an audit of heart transplant referrals to Groote Schuur Hospital, Cape Town, over a 23-year period, focusing on patient demographics, indications for referral, waiting-list dynamics, and transplant referral outcomes.

Methods. The study utilised a retrospective patient folder review for the period 1 January 1997 - 31 December 2019 and audited the trends in heart transplant referrals and associated outcomes of the referral at a tertiary academic hospital.

Results. A total of 625 recipients were referred for heart transplantation, with the majority being male (*n*=412; 65.9%), while gender was undocumented for 69 cases (11.0%). The mean age was 38.1 (14.6) years, and 153 (24.5%) were listed for transplant, while 215 (34.4%) were deemed ineligible for listing. Contraindications for listing included social (*n*=106; 49.3%), medical (*n*=83; 38.6%) and psychological (*n*=26; 12.0%) factors, while 134 patients (21.4%) were considered too well. Poor social circumstances (*n*=38; 39.6%), poor insight (*n*=28; 29.2%) and poor compliance (*n*=21; 21.9%) were the most common non-medical reasons for not listing recipients, while obesity (*n*=30; 31.3%) and smoking (*n*=23; 24.0%) were notable medical contraindications. Forty-nine patients (7.8%) died during work-up, while 130 (85.0%) of the listed patients received a heart transplant. Of the 429 donor referrals, 139 (32.4%) were accepted for organ procurement. Reasons for declining donors included unsuitability for transplantation (30.3%), lack of capacity (1.8%), and recipient-donor mismatch (66.9%).

Conclusion. Three-quarters of the referred patients were deemed unsuitable for heart transplantation for medical and/or social reasons. The ratio of referral to listing has decreased over time. However, once listed, the likelihood of receiving a transplant was high.

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INTRODUCTION

Heart transplantation is the gold-standard treatment for end-stage cardiac failure, which improves both survival and quality of life.[1] This advanced therapy should be considered for all patients who are refractory to goal-directed medical therapy or for whom alternative surgical options are not available or are contraindicated. Indications are also extended to non-heart failure patients with debilitating angina or refractory ventricular arrythmias, where alternative therapies are not suitable.[2] The timing of referral and listing of patients for heart transplant has evolved over time, with the introduction of implantable resynchronisation therapy and durable ventricular assist devices as well as novel medical agents (SLGT2 inhibitors) as bridging therapies.[3] However, these adjuncts should not alter the absolute number of heart transplant candidates referred to an advanced heart failure centre, as they are provided at the same facility.

Groote Schuur Hospital (GSH) is an academic referral hospital that provides tertiary care for the population of Western Cape Province, South Africa (SA) and is a national referral centre for nominated quaternary therapies. As such, GSH is the only provider of heart transplantation in the state sector and accepts cross-provincial referrals for both insured and uninsured patients.[4] Despite its long history of heart transplantation,[5] there has been a notable recent decline in activity at GSH. Although a national moratorium on heart transplantation at the end of the previous century,[6] as well as a simultaneous self-imposed restriction on heart transplant numbers by the hospital administration, is a potential explanation, the recent renewed support for transplants by both hospital and provincial management has not translated into an increase in the number of transplants. A further explanation would be the development of private heart transplant facilities diluting the relative number of transplants since activity peaked at GSH in the mid-1990s. The population has increased by 26% over this period, however, with >50 million citizens without medical insurance in a setting where cardiovascular disease remains the dominant cause of death.[7]

In the GSH heart and lung transplant unit, which provides healthcare to patients from all socioeconomic strata, psychosocial factors remain a significant burden and a barrier to this advanced therapy. Integration of social support systems within transplant

programmes to improve access to solid-organ transplants has been described.[8] The liberalisation of access to therapy at our own institution through updated local guidelines has not resulted in an apparent increase in local transplant activity. A confounder must therefore include the decreased donor referrals over the same timeframe, which may account for reduced heart transplant activity. The scarce resource of organ donors worldwide, particularly in SA, is well described as a limiting factor for solid organ transplantation. SA, with a low donor referral rate of 1.4 per million, also lacks a centralised organ donor organisation. [9] Referral for organ donation is sporadic and dependent on individual healthcare workers referring potential donors to co-ordinators employed by transplant centres. [10].

This retrospective folder review audited recipient referrals for heart transplant as well as the consented donor cohort with a view to documenting the referral-transplant trend over 2 decades. By improving understanding of patient characteristics and transplantation rates, the study aimed to provide valuable insights into the effectiveness of the transplant referral pathway in meeting the needs of patients with end-stage cardiac failure in the SA context.

METHODS

Study design

This study utilised a retrospective patient folder review and audit approach to describe trends in heart transplant referrals and associated outcomes at a tertiary academic hospital. The data collection period spanned from 1 January 1997 to 31 December 2019.

Study setting

GSH, located in Cape Town, is the only academic tertiary care facility providing heart transplantation in SA. The hospital primarily serves patients who do not have medical insurance and are from a low socioeconomic background.[11] Suitability for listing was based on the GSH unit guidelines for recipient listing (February 2017 circular, unpublished), which use the International Society for Heart and Lung Transplantation (ISLHT) listing criteria as a backbone reference publication.[12] All patients who meet medical criteria undergo a formal social worker assessment, delivered as a written report and presented independently at a multidisciplinary recipient review meeting. The report has a standardised format evaluating the following domains: family and social network (availability of reliable and supportive caregivers), emotional stability (presence of a support system such as friends, relatives, or support groups), financial support, psychosocial suitability (mental health, coping skills, and ability to adhere to the post-transplant treatment plan, triggering referral to mental health services if appropriate), suitability of the home environment (accessibility, safety and hygiene), and commitment (willingness to adhere to the post-transplant medical regimen, avoidance of substance abuse, and lifestyle changes, dietary restrictions and exercise).

Patient inclusion

The review included patients referred for heart transplantation who were >12 years of age. Data on potential and utilised organ donors were also included.

Data collection and management

A standardised data collection form was developed to acquire data on referred patients and donors. Fields for referred recipients included patient demographics (age and gender), diagnosis, and referral indications for heart transplant. The duration of time spent on the waiting list and the outcome or decision following referral were recorded. For patients not listed for transplant, the reasons for exclusion were documented between 2010 and 2019 and are reported in Supplementary Table 1 (available online at https://www.samedical.org/file/2154); this information was not available in the first decade.

Similarly, for donor organ referrals, data collected included the cause of death of the donor, demographics (age, gender, and province of referral), the suitability of the referred organ, and whether the organ was accepted or declined. In cases where the organ was declined, the reasons were recorded if available. Organ referral from a state or private hospital was also documented. The following definitions were applied when categorising brain-dead donors: a potential donor was defined as a patient with a devastating brain injury or lesion; an eligible donor was declared dead, medically suitable, and consented for transplant; unsuitable donors were potential donors who were not medically suitable, whereas in recipient-donor mismatch the donor was eligible but declined on the grounds of immunological or size incompatibility; and lack of capacity was defined where there was insufficient staff or hospital bed capacity to undertake a transplant.

Data were de-identified and entered into a secure electronic database (Filemaker version 18; Claris International, USA) hosted by and backed up on the University of Cape Town's server. A one-time pin authentication is required by approved users to protect the confidentiality and integrity of the data.

Data analysis

Descriptive statistics were used to summarise the data. Continuous variables such as age and waiting-list duration were reported as means with standard deviations (SDs). Categorical variables were presented as frequencies and percentages. Temporal

trends, referral patterns, recipient and organ decline, and outcomes were illustrated per year over the study period.

Ethical considerations

Prior to commencing the study, ethics approval was obtained from the University of Cape Town's Human Research Ethics Committee (ref. no. HREC 575/2019).

RESULTS

Referred recipients

The mean (SD) age of referred recipients was 38.1 (14.6) years, and the majority were male (65.9%) (Table 1). Dilated cardiomyopathy accounted for nearly half (45.1%) of all recipient referrals. Additionally, nearly a quarter (24.3%) of the referrals were diagnosed with ischaemic cardiomyopathy. Only 4 patients were referred for retransplant due to chronic rejection, and the diagnosis was not documented or documented as unknown in 67 (10.7%) of the referrals.

Referred donors

The mean (SD) age of donors at referral was 29.4 (15.0) years, and the majority were male (67.5%). Most donors (54.1%) were referred from Western Cape Province and 58.3% of all the donors presented at a state facility (Table 2). The number of recipient referrals generally exceeded the number of organs referred, except for the years 2008 and 2018, when there were more donors referred. On an annual basis, the recipient referral rate was calculated to be 27 patients and the annual donor referral rate was determined to be 19 patients. No apparent association was identified in the trend of referrals between donors and recipients over the years. Analysing the historical data, it was observed that the highest number of recipient referrals occurred in 1997, reaching a peak of 42 patients. Conversely, the lowest number of donor referrals was recorded in 2012, with only 6 patients referred (Fig. 1).

The most frequently reported cause of death among the donors was head trauma, accounting for a significant proportion of cases (*n*=235; 54.8%) (Table 2). Spontaneous cerebral bleeds were the second most prevalent cause of death, representing 26.6% of the cases (*n*=114). Among donors with head trauma as the cause of death, a substantial majority (82.9%) were deemed suitable for organ transplantation. Conversely, the majority of organs donated by individuals who had infection as the cause of death (80.0%) were considered unsuitable for transplantation (Fig. 2).

Transplant activity

Among the 625 recipient referrals, a total of 153 individuals, representing 24.5% of the referrals, were listed for transplant. Of those who were listed, 23 patients (15.0%) died while waiting for a suitable organ to become available. The remaining 130 individuals (85.0%) underwent successful transplantation (meaning a heart transplant surgery procedure was performed). A significant number of recipient referrals, totalling 215 (34.4%), were turned down for transplant (Fig. 3). The primary reasons for declining referrals were categorised as social, medical and psychological factors. Social factors were the main exclusion criteria for transplantation and accounted for 106 (49.3%) cases of non-listing; medical causes accounted for 83 cases (38.6%), and psychological contraindications for 26 (12.0%). In the subset analysis of the decade 2010 - 2019, when data were captured with higher-resolution analyses, 265 recipients were referred, of whom 96 were declined for listing. Supplementary Table 1 (https://www.samedical.org/file/2154) outlines the reasons for the decline captured from 2010 to 2019. Poor social circumstances (*n*=38; 39.6%), poor insight (*n*=28; 29.2%) and poor compliance (*n*=21; 21.9%) were the most common non-medical reasons for not listing recipients.

Less than one-third of the 429 donor referrals (32.4%) met the criteria for organ procurement. Among the 290 donors who were declined, the most common reason was lack of a suitable recipient due to a recipient-donor mismatch (*n*=194; 66.9%) (Fig. 4). In particular, the years 1998 and 2000 had the highest mismatch of suitability, while 80.0% of the referred organs were deemed unsuitable for transplant in 2012. After recipient-donor mismatch, organ unsuitability was the second most common reason for declining the donor (*n*=88; 30.3%). Eight donors (1.8%) were declined owing to lack of capacity. The mean waiting period for all listed patients in the study was 190 days, with a range of 1 - 916 days. There was a close association between the patients listed, donors referred and patients transplanted (Fig. 1).

DISCUSSION

This study, which reports heart transplant activity from the only public sector programme in SA, has four main findings. Firstly, despite an expanding population with an expected increase in the burden of end-stage cardiac conditions requiring transplantation, we found that the number of recipient referrals remained relatively stable over 2 decades. Secondly, we found that approximately a third of these referrals were turned down because of some disqualifying reason, and although more than one contraindication could be present in the same patient, socioeconomic barriers to transplantation were present in almost half of the declined patients. Thirdly, we found that head injury as the mechanism of brain death was most likely to result in a utilisable donor heart, and that the major reason for a suitable donor heart not being utilised was the absence of a suitable blood group, size- and/ or crossmatched recipient on the waiting list. Lastly, we found that waiting-list mortality was relatively low, with 85% of referrals who were accepted and waitlisted receiving a transplant, a conversion rate that compares favourably with the USA and other countries in the pre-implantable ventricular assist device (VAD) era.[13]

Considering the increasing challenges facing SA society, it should come as no surprise that low social support was a common obstacle to transplantation in the study. Incorporating social support as an important criterion in the transplant evaluation process – based on the principle of utility[14] – is a common practice in solid transplant programmes for different organs around the world.[3,4,15,16] In 2019, a national survey of transplant providers in the USA found that ~20% of transplant candidates were excluded on these grounds.[17] Lower socioeconomic status is also associated with delayed referral for heart transplantation.[18] However, despite being widely used, the social support criterion is considered controversial because of its subjectivity, the lack of standardised assessment tools, and the risk of implicit bias,[19] and because its relationship to post-transplant outcomes has not been consistently demonstrated.[20] A meta-analysis of studies (that included heart, lung, liver, and kidney recipients) found that, in the seven high-income countries (HICs) in which the studies were performed, social support was not predictive of post-transplant adherence, and was inconsistently associated with survival and graft loss.[21] Making social support a determining factor for heart transplant eligibility also raises ethical concerns, as it may be seen as discriminatory, disproportionately affects vulnerable patients, and amplifies pre-

existing health inequities. It also raises legal and human rights concerns. Countries such as Canada and the European Union have responded to this criticism by removing social support considerations from the list of transplant eligibility criteria, but extrapolating findings from HICs to our setting is clearly not straightforward. In SA, with low donor numbers, limited resources for transplantation, and inadequate social support from the state, considering socioeconomic factors when rationing access to transplantation may be a relevant practical necessity, and in part explains the much higher incidence of this contraindication in our study.

Transplantation does not take place in a vacuum, and the challenges faced by patients in the transplant system are representative of the limited access to healthcare facilities, shortage of essential resources, and social disparities present in our society as a whole. Consequently, a nuanced approach considering the unique socioeconomic landscape of SA is essential to understand and address the potential barriers that could undermine transplant success in our setting. While socioeconomic factors may be considered in determining eligibility, this should be done carefully and ethically, with a focus on screening for low social support and the offering of assistance, while balancing the need for maximal overall benefit for patients and society. This finding emphasises the need to strengthen the support services around transplantation to ensure that the transplantation process is as equitable as possible.

Overall, only about a third of donor heart referrals to our hospital resulted in a transplant, meaning that ~70% of donor hearts were either unused or referred to the private sector. Even countries such as the USA, with centralised organ allocation systems maximising donor-recipient matching, the non-utilisation rate of donor hearts is still ~50% (despite the use of so-called extended-criteria hearts such as those from donors with diabetes and hypertension, or from donors who have hepatitis C or have abused illicit drugs),[22] but these hearts are usually declined because of either undesirable patient-related factors or adverse haemodynamic or echocardiographic findings.[23] In our study, however, the major reason for donor heart non-utilisation was the lack of a suitable blood group-, size- and/or crossmatched recipient. This finding emphasises the urgent need to expand the recipient pool. A limited recipient pool and a shortage of donor organs lead to lengthy waiting lists for heart transplantation. In our study, the average waiting period after being listed for transplant was just over 6

months, which is about the same as reported in the United Network Organ Sharing database in the USA in the era before implantable VADs.[24] In addition, with a larger recipient pool, there is a higher likelihood of matching a donor heart with a suitable recipient, and it also allows for a more comprehensive evaluation of potential matches based on factors such as severity of illness, medical urgency and compatibility. This approach ensures that donor organs are allocated to those patients who will benefit the most from the transplant, maximising the use of available organs.

Traumatic brain injury was the cause of death in the majority of our donor referrals, reflecting the local context in SA, where incidents of violence and road accidents contribute to a high prevalence of head injuries.[25] This finding is in sharp contrast to the data from Europe, where the pathological cause of death in most donors is spontaneous intracranial haemorrhage.[26] There was, however, a temporal increase during the study period in the number of non-traumatic or so-called 'medical' causes of brain death, reflecting the international trend to expand indications for cardiac donation,[26] for example including donors who have died of poisonings, overdoses and intoxications.[27] We also showed that donors who had head trauma as the cause of death were most likely to be suitable for transplantation; anoxic brain injury donors have been shown to have lower utilisation rates (presumably owing to a greater global injury due to the effects of tissue hypoxia),[28] and there has historically been a reluctance to accept donors with primary brain tumours and infection as causes of brain death because of concerns about metastatic spread and donor-derived infection, although newer studies suggest that these risks may be overstated.[29-31] Although we did not collect these data, we surmise that lower utilisation rates in patients with intracranial haemorrhage or cerebral infarcts are related to unfavourable donor demographics and donor heart characteristics (older age, smoking history, history of hypertension and/or ischaemic heart disease, or echocardiographic features of left ventricular hypertrophy or regional wall motion abnormalities, to name a few) resulting from the underlying cardiovascular risk factors that have predisposed to the intracranial event, as has been shown in other studies.[32-34]

Some limitations of this study deserve emphasis. While all assessments were performed by senior social workers with experience in transplantation, and staff turnover during the study period was low, the lack of a formal scoring system to assess

social support may have led to some variation and subjectivity in the assessments of candidacy. Objective psychosocial assessment tools for heart transplantation, such as the Stanford Integrated Psychosocial Assessment for Transplantation, Psychosocial Assessment of Candidates for Transplantation, and Transplant Evaluation Rating Scale, have been developed,[35-37] but there is inconsistent evidence demonstrating their prediction of post-transplant outcomes, and they have not been validated in resource-constrained settings.[38] Recognising the critical importance of the psychosocial assessment and the need for standardisation, the ISLHT released a consensus statement in 2018 to promote consistency of evaluation,[35] but this document was only published at the end of our study period and had limited influence on our practice. In addition, it lacks specific recommendations, does not include a scoring system, represents expert opinion from high-volume centres in the Global North, and is not an evidence-based guideline. The development of an objective psychosocial evaluation tool for determining eligibility for heart transplantation in SA is an attractive objective, but the profound discrepancies in healthcare equity in our system and the heterogeneity of the social problems of our patients present a formidable obstacle to this undertaking.

CONCLUSION

Heart transplantation in SA faces numerous challenges. Addressing these challenges requires a multifaceted approach, including increasing public awareness about organ donation, improving access to cardiac care services and expanding the referral base, and investing in transplant infrastructure and patient support services. Collaboration between the government, healthcare institutions, non-governmental organisations and the public will be vital in overcoming these challenges and improving heart transplantation access in the public sector in SA. Fortunately, opportunities for improvement exist at every link on the chain of transplantation, and even small advances are likely to see commensurate increases in transplant activity. By identifying these bottlenecks and evaluating barriers, we hope to stimulate research and quality improvement to facilitate timely and equitable access to transplantation for all patients in need.

Declaration

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Author contributions

Study conception and design: PZ, JB, TP. Analysis, and interpretation: PH, RK, TP, GC. Collected data: KS, TP, MM, AR. Wrote article: RK, TP, GC. Refinement of article: JS, AB, CO, NdS, BC. All authors reviewed the results and approved the final version of the manuscript.

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Conflicts of interest

None.

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LIST OF TABLES AND FIGURES

Table 1: Demographic characteristics for recipient referrals (N=625)

Characteristic	***n* (%)***
Age (years), mean (SD)	38.1 (14.6)
Sex	
Male	412 (65.9)
Female	144 (23.0)
Undocumented	69 (11.0)
Diagnosis on referral	
Dilated cardiomyopathy	282 (45.1)
Ischaemic cardiomyopathy	152 (24.3)
Documented as unknown	51 (8.1)
Other diagnosis	36 (5.8)
Structural prosthetic valve failure	20 (3.2)
Not documented	16 (2.6)
Restrictive cardiomyopathy	12 (1.9)
Valvular-related heart disease	18 (2.9)
Complex congenital heart disease	10 (1.6)
Peripartum cardiomyopathy	17 (2.7)
Arrhythmogenic right ventricular dysplasia	7 (1.1)
Chronic rejection post-transplant	4 (0.6)
Waiting-list period (days), mean (range)	190 (1 - 916)

SD = standard deviation.
*Except where otherwise indicated.

Table 2: Characteristics of consented donor referrals (n=429)

Characteristic	***n* (%)***
Age (years), mean (SD)	29.4 (15.0)
Sex	
Male	282 (67.5)
Female	136 (32.5)
Undocumented	11 (10.0)
Province or country of referral	
Western Cape	232 (54.3)
Gauteng	98 (30.0)
Free State	18 (4.2)
Limpopo	1 (0.2)
Mpumalanga	1 (0.2)
KwaZulu-Natal	17 (4.0)
Eastern Cape	58 (13.6)
Namibia	2 (0.5)
Undocumented	2 (0.5)
Insurance	
Uninsured	250 (58.3)
Private	125 (29.1)
Undocumented	54 (12.6)
Cause of death	
Head trauma	235 (54.8)
Spontaneous cerebral bleed	114 (26.6)
Anoxia	33 (7.7)
Undocumented	22 (5.1)
Embolic stroke	14 (3.3)
Infection	6 (1.4)
Brain tumour	5 (1.2)

SD = standard deviation.
*Except where otherwise indicated

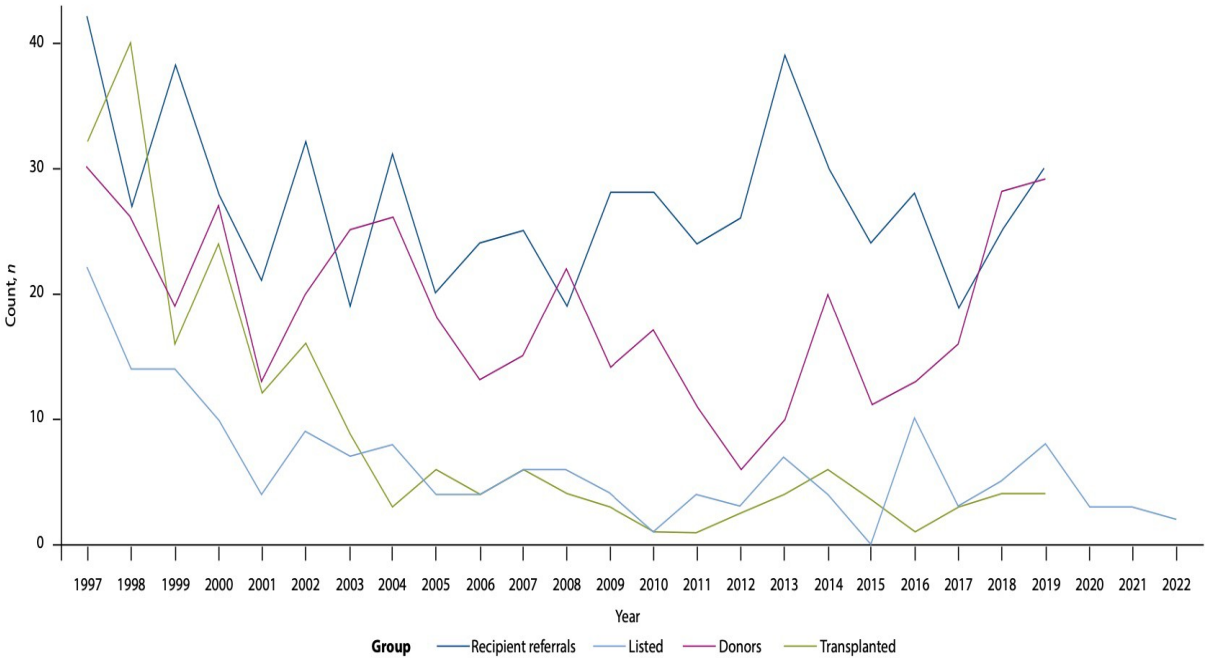

Fig. 1. Merged data representing absolute recipient referrals and consented donor referrals against listed recipients and transplants.

Fig. 2. Suitability of consented organ referral by pathological cause of death. (A) Suitability of heart for transplantation categorised by cause of death, and (B) consented donor referrals by year based on medical or traumatic aetiology.

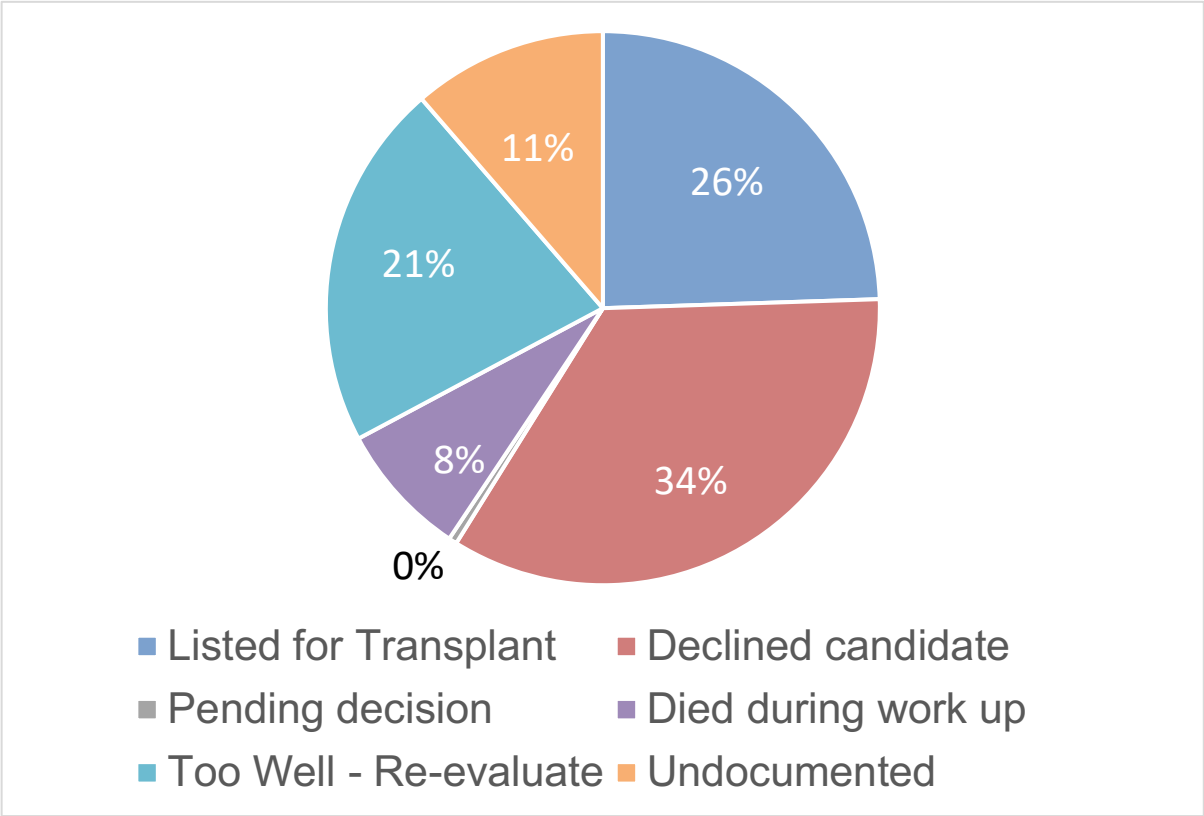

Fig. 3. Recipient referral outcome

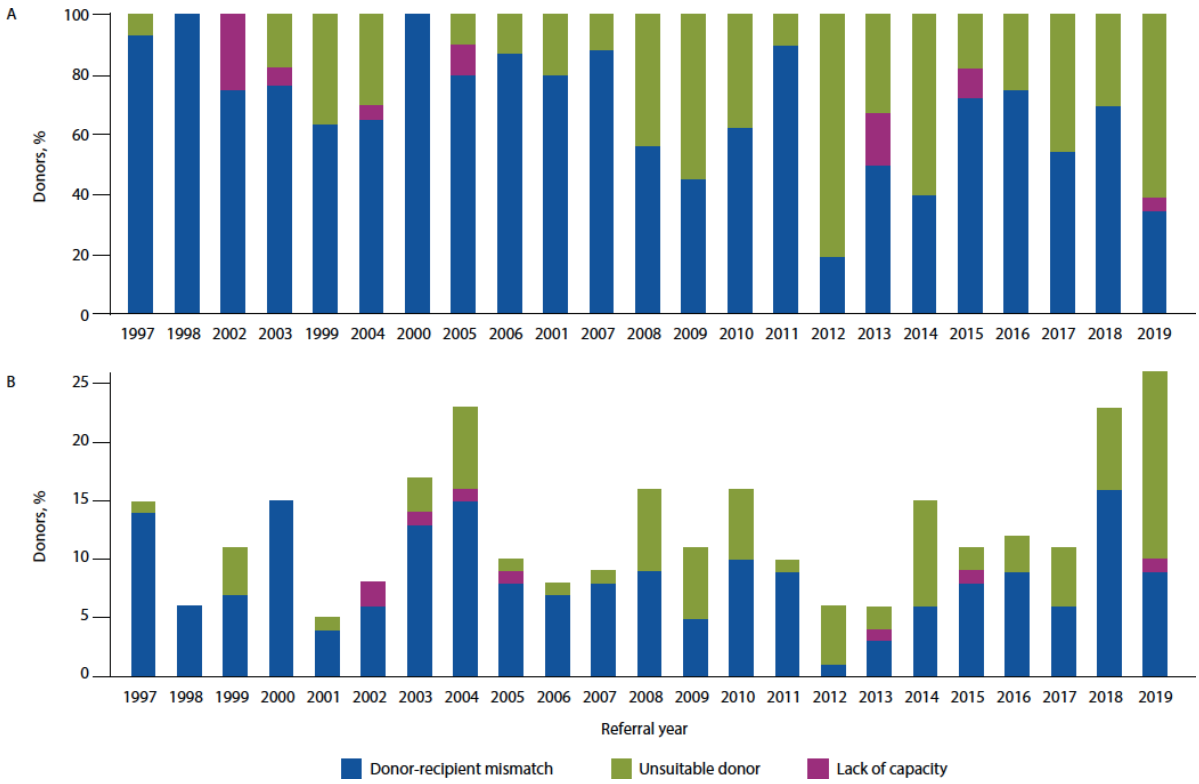

Fig 4. Reason for declining consented donors for heart transplant, expressed as (A) ratio and (B) absolute numbers.

LIST OF APPENDICES

Ethics approval letter

UNIVERSITY OF CAPE TOWN
Faculty of Health Sciences
Human Research Ethics Committee

Room E53-46 Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6492
Email: sumayah.ariefdien@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

27 August 2019

HREC REF: 575/2019

Dr T Pennel
Department of Surgery
Division of Cardiothoracic Surgery
D-24
NGSH

Dear Dr Pennel

PROJECT TITLE: A 20-YEAR RETROSPECTIVE REVIEW OF HEART TRANSPLANT REFERRALS TO GROOTE SCHUUR HOSPITAL BETWEEN 1998 AND 2018 (MASTER OF MEDICINE DR R KANYONGO).

Thank you for submitting your study to the Faculty of Health Sciences Human Research Ethics Committee (HREC) for review.

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

Approval is granted for one year until the 30 August 2020.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.
(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

We acknowledge that the student: Dr Rusununguko Kanyongo will also be involved in this study.

Please quote the HREC REF in all your correspondence.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, FHS HUMAN RESEARCH ETHICS COMMITTEE

Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938
NHREC-registration number: REC-210208-007

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2006), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines. The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

SAMJ Instructions for authors

Author Guidelines

Author Guidelines

The *SAMJ* has launched a new submission and tracking system. Authors will be required to register a profile on the in order to submit a manuscript.

To submit a manuscript, please proceed to: https://samajournals.co.za/index.php/samj

To access and submit an article already in production, please see the guidelines here.

Author Guidelines

Please watch the Author Tutorial for guidance on how to submit.

Please take the time to familiarise yourself with the policies and processes below. If you still have any questions, please do not hesitate to ask our editorial staff (tel.: +27 (0)21 532 1281, email: publishing@samedical.org).

SAMJ policies

Types of articles considered by the SAMJ
Article Processing Charges
Authorship
Conflict of interest
Research ethics committee approval
Clinical trials
Protection of patient's rights to privacy
Copyright notice
Privacy statement
Ethnic classification
CPD

Manuscript preparation

Preparing an article for anonymous review
General article format/layout
Preparation notes by article type
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Tables
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From submission to acceptance

Submission and peer-review
Production process
Changing contact details or authorship

Publication

Online versus print
Errata and retractions
Indexing

SAMJ Policies

Type of articles considered by the SAMJ

The *SAMJ* will no longer limit the articles accepted to those that have 'general medical content', but is intending to capture the spectrum of medical and health sciences, grouped by relevance to the country's burdens of disease. This content will include research in the social sciences and economics that is relevant to the medical issues around our burden of disease. Please see 'A new vision for the *SAMJ* – and a call for papers' for a full discussion of the new directions for the *SAMJ*.

We accept the following types of articles:

Research
Reviews
Clinical trials
Editorials
In Practice (Previously Forum incl. Case Reports)
Correspondence
Obituaries
Book reviews
Ad hoc supplements e.g. guidelines, conference/congress abstracts, Festschrifts*

The following articles are by invitation only:

Guest editorial
Continuing Medical Education (CME)

*Contact claudian@hmpg.co.za for information on submitting ad hoc/commissioned supplements, including guidelines, conference/congress abstracts, Festschrifts, etc.

Publication Fees

All articles published in the *South African Medical Journa*l are open access and freely available online upon publication. This is made possible by applying a business model to offset the costs of peer review management, copyediting, design and production, by charging a publication fee of R7 440 (VAT incl.) for each research and In Practice article published. The publication fee is standard and does not vary based on length, colour, figures, or other elements.

The publication fee is payable when your manuscript is editorially accepted and before production commences for publication. The submitting author will be notified that payment is due and given details on the available methods of payment. Prompt payment is advised; the article will not enter into production until payment is received.

Authorship

Named authors must consent to publication. Authorship should be based on: (*i*) substantial contribution to conceptualisation, design, analysis and interpretation of data; (*ii*) drafting or critical revision of important scientific content; or (*iii*) approval of the version to be published. These conditions must all be met (uniform requirements for manuscripts submitted to biomedical journals; refer to www.icmje.org)

If authors' names are added or deleted after submission of an article, or the order of the names is changed, all authors must agree to this in writing.

Please note that co-authors will be requested to verify their contribution upon submission. Non-verification may lead to delays in the processing of submissions.

Author contributions should be listed/described in the manuscript.

Conflicts of interest

Conflicts of interest can derive from any kind of relationship or association that may influence authors' or reviewers' opinions about the subject matter of a paper. The existence of a conflict – whether actual,

perceived or potential – does not preclude publication of an article. However, we aim to ensure that, in such cases, readers have all the information they need to enable them to make an informed assessment about a publication's message and conclusions. We require that both authors and reviewers declare all sources of support for their research, any personal or financial relationships (including honoraria, speaking fees, gifts received, etc) with relevant individuals or organisations connected to the topic of the paper, and any association with a product or subject that may constitute a real, perceived or potential conflict of interest. If you are unsure whether a specific relationship constitutes a conflict, please contact the editorial team for advice. If a conflict remains undisclosed and is later brought to the attention of the editorial team, it will be considered a serious issue prompting an investigation with the possibility of retraction.

Research ethics committee approval

Authors must provide evidence of Research Ethics Committee approval of the research where relevant. Ensure the correct, full ethics committee name and reference number is included in the manuscript.

If the study was carried out using data from provincial healthcare facilities, or required active data collection through facility visits or staff interviews, approval should be sought from the relevant provincial authorities. For South African authors, please refer to the guidelines for submission to the National Health Research Database. Research involving human subjects must be conducted according to the principles outlined in the Declaration of Helsinki. Please refer to the National Department of Health's guideline on Ethics in Health research: principles, processes and structuresto ensure that the appropriate requirements for conducting research have been met, and that the HPCSA's General Ethical Guidelines for Health Researchers have been adhered to.

Clinical trials

As per the recommendations published by the International Committee of Medical Journal Editors (ICMJE), clinical trial research is any research that assigns individuals to an intervention, with or without a concurrent comparison/control group to study the cause-and-effect relationship between the intervention and health outcomes. All clinical trials should be registered with the appropriate national clinical trial registry (or any international primary register, if relevant), and the trial registration number should be cited at the end of the abstract. All clinical trial reports must also contain a data sharing statement as per the recommendations of the ICMJE. Statements are to indicate:

whether individual deidentified participant data will be shared;
what data in particular will be shared; whether additional, related documents will be available;
when the data will become available and for how long; by what access criteria data will be shared.

Please see the ICJME announcement for further details and illustrative examples of data sharing statements: ICMJE Data Sharing Statements for Clinical Trials

Since 1st December 2005, all clinical trials conducted in South Africa have been required to be registered in the South African National Clinical Trials Register. The SAMJ therefore requires that clinical trials be registered in the relevant public trials registry at or before the time of first patient enrollment as a condition for publication. The trial registry name and registration number must be included in the manuscript.

Please refer to the general guidelines for all papers at the top of this article for additional requirements with respect to ethics approval, funding, author contributions, etc. The format of original research articles should be followed for reporting of clinical trial results.

Patient Consent

Information that would enable identification of individual patients should not be published in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) has given informed written consent for publication and distribution. We further recommend that the published article is disseminated not only to the involved researchers but also to the patients/participants from whom the data was drawn. Refer to Protection of Research Participants. The signed consent form should be submitted with the manuscript to enable verification by the editorial team.

Other individuals

Any individual who is identifiable in an image must provide written agreement that the image may be used in that context in the *SAMJ.*

Copyright notice

Material submitted for publication in the *SAMJ* is accepted provided it has not been published or submitted for publication elsewhere. Please inform the editorial team if the main findings of your paper have been presented at a conference and published in abstract form, to avoid copyright infringement. All research already published as 'Conference proceedings' needs to be substantially re-written, with a new title, a new abstract and new and important results to back up any study before it will be considered for a new publication. The *SAMJ* does not hold itself responsible for statements made by the authors.

Previously published images

If an image/figure has been previously published, permission to reproduce or alter it must be obtained by the authors from the original publisher and the figure legend must give full credit to the original source. This credit should be accompanied by a letter indicating that permission to reproduce the image has been granted to the author/s. This letter should be uploaded as a supplementary file during submission.

Privacy statement

The *SAMJ* is committed to protecting the privacy of its website and submission system users. The names, personal particulars and email addresses entered in the website or submission system will not be made available to third parties without the user's permission or due process. By registering to use the website or submission system, users consent to receive communication from the *SAMJ* or its publisher SAMA on matters relating to the journal or associated publications. Queries with regard to privacy may be directed to publishing@hmpg.co.za.

Ethnic/race classification

Use of racial or ethnicity classifications in research is fraught with problems. If you choose to use a research design that involves classification of participants based on race or ethnicity, or discuss issues with reference to such classifications, please ensure that you include a detailed rationale for doing so, ensure that the categories you describe are carefully defined, and that socioeconomic, cultural and lifestyle variables that may underlie perceived racial disparities are appropriately controlled for. Please also clearly specify whether race or ethnicity is classified as reported by the patient (self-identifying) or as perceived by the investigators. Please note that is not appropriate to use self-reported or investigator-assigned racial or ethnic categories for genetic studies.

Continuing Professional Development (CPD)

SAMJ is an HPCSA-accredited service provider of CPD materials. Principal authors can earn up to 15 CPD continuing education units (CEUs) for publishing an article; co-authors are eligible to earn up to 5 CEUs; and reviewers of articles can earn 3 CEUs. Each month, *SAMJ* also publishes a CPD-accredited questionnaire relating to the academic content of the journal. Successful completion of the questionnaire with a pass rate of 70% will earn the reader 3 CEUs. Administration of our CPD programme is managed by Medical Practice Consulting. To complete questionnaires and obtain certificates, please visit MRP Consulting

Manuscript preparation

Preparing an article for anonymous review

To ensure a fair and unbiased review process, all submissions are to include an anonymised version of the manuscript. The exceptions to this are Correspondence, Book reviews and Obituary submissions.

Submitting a manuscript that needs additional blinding can slow down your review process, so please be sure to follow these simple guidelines as much as possible:

An anonymous version should not contain any author, affiliation or particular institutional details that will enable identification.
Please remove title page, acknowledgements, contact details, funding grants to a named person, and any running headers of author names.
Mask self-citations by referring to your own work in third person.

General article format/layout

Accepted manuscripts that are not in the correct format specified in these guidelines will be returned to the author(s) for correction, which will delay publication.

General:

Manuscripts must be written in UK English.
The manuscript must be in Microsoft Word format. Text must be single-spaced, in 12-point Times New Roman font, and contain no unnecessary formatting (such as text in boxes).
Please make your article concise, even if it is below the word limit.
Qualifications, ***full*** affiliation (department, school/faculty, institution, city, country) and contact details of ALL authors must be provided in the manuscript and in the online submission process.
Abbreviations should be spelt out when first used and thereafter used consistently, e.g. 'intravenous (IV)' or 'Department of Health (DoH)'.
Include sections on Acknowledgements, Conflict of Interest, Author Contributions and Funding sources. If none is applicable, please state 'none'.
Scientific measurements must be expressed in SI units except: blood pressure (mmHg) and haemoglobin (g/dL).
Litres is denoted with an uppercase L e.g. 'mL' for millilitres).
Units should be preceded by a space (except for % and ºC), e.g. '40 kg' and '20 cm' but '50%' and '19ºC'.
Please be sure to insert proper symbols e.g. µ not u for micro, a not a for alpha, b not B for beta, etc.
Numbers should be written as grouped per thousand-units, i.e. 4 000, 22 160.
Quotes should be placed in single quotation marks: i.e. The respondent stated: '...'
Round brackets (parentheses) should be used, as opposed to square brackets, which are reserved for denoting concentrations or insertions in direct quotes.
If you wish material to be in a box, simply indicate this in the text. You may use the table format – this is the *only* exception. Please DO NOT use fill, format lines and so on.

SAMJ is a generalist medical journal, therefore for articles covering genetics, it is the responsibility of authors to apply the following:

Please ensure that all genes are in italics, and proteins/enzymes/hormones are not.

Ensure that all genes are presented in the correct case e.g. TP53 not Tp53.

**NB: Copyeditors cannot be expected to pick up and correct errors wrt the above, although they will raise queries where concerned.

Define all genes, proteins and related shorthand terms at first mention, e.g. '188del11' can be glossed as 'an 11 bp deletion at nucleotide 188.'

Use the latest approved gene or protein symbol as appropriate:

Human Gene Mapping Workshop (HGMW): genetic notations and symbols
HUGO Gene Nomenclature Committee: approved gene symbols and nomenclature
OMIM: Online Mendelian Inheritance in Man (MIM) nomenclature and instructions
Bennet et al. Standardized human pedigree nomenclature: Update and assessment of the recommendations of the National Society of Genetic Counselors. J Genet Counsel 2008;17:424-433: standard human pedigree nomenclature.

Preparation notes by article type

Research
Editorials
CME
In Practice and Case reports
Reviews
Clinical trials
Correspondence
Obituaries
Book reviews
Guidelines

Research

Guideline word limit: 4 000 words

Research articles describe the background, methods, results and conclusions of an original research study. The article should contain the following sections: introduction, methods, results, discussion and conclusion, and should include a structured abstract (see below). The introduction should be concise – no more than three paragraphs – on the background to the research question, and must include references to other relevant published studies that clearly lay out the rationale for conducting the study. Some common reasons for conducting a study are: to fill a gap in the literature, a logical extension of previous work, or to answer an important clinical question. If other papers related to the same study have been published previously, please make sure to refer to them specifically. Describe the study methods in as much detail as possible so that others would be able to replicate the study should they need to. Results should describe the study sample as well as the findings from the study itself, but all interpretation of findings must be kept in the discussion section, which should consider primary outcomes first before any secondary or tertiary findings or post-hoc analyses. The conclusion should briefly summarise the main message of the paper and provide recommendations for further study.

Select figures and tables for your paper carefully and sparingly. Use only those figures that provided added value to the paper, over and above what is written in the text.

Do not replicate data in tables and in text .

Structured abstract

This should be 250-400 words, with the following recommended headings:

Background: why the study is being done and how it relates to other published work.

Objectives: what the study intends to find out

Methods: must include study design, number of participants, description of the intervention, primary and secondary outcomes, any specific analyses that were done on the data.

Results: first sentence must be brief population and sample description; outline the results according to the methods described. Primary outcomes must be described first, even if they are not the most significant findings of the study.

Conclusion: must be supported by the data, include recommendations for further study/actions.

Please ensure that the structured abstract is complete, accurate and clear and has been approved by all authors.
Do not include any references in the abstracts.

Here is an example of a good abstract.

Main article

All articles are to include the following main sections: Introduction/Background, Methods, Results, Discussion, Conclusions.

The following are additional heading or section options that may appear within these:

Objectives (within Introduction/Background): a clear statement of the main aim of the study and the major hypothesis tested or research question posed
Design (within Methods): including factors such as prospective, randomisation, blinding, placebo control, case control, crossover, criterion standards for diagnostic tests, etc.
Setting (within Methods): level of care, e.g. primary, secondary, number of participating centres.
Participants (instead of patients or subjects; within Methods): numbers entering and completing the study, sex, age and any other biological, behavioural, social or cultural factors (e.g. smoking status, socioeconomic group, educational attainment, co-existing disease indicators, etc)that may have an impact on the study results. Clearly define how participants were enrolled, and describe selection and exclusion criteria.
Interventions (within Methods): what, how, when and for how long. Typically for randomised controlled trials, crossover trials, and before and after studies.
Main outcome measures (within Methods): those as planned in the protocol, and those ultimately measured. Explain differences, if any.

Results

Start with description of the population and sample. Include key characteristics of comparison groups.
Main results with (for quantitative studies) 95% confidence intervals and, where appropriate, the exact level of statistical significance and the number need to treat/harm. Whenever possible, state absolute rather than relative risks.
Do not replicate data in tables and in text.
If presenting mean and standard deviations, specify this clearly. Our house style is to present this as follows:
E.g.: The mean (SD) birth weight was 2 500 (1 210) g. Do not use the ± symbol for mean (SD).
Leave interpretation to the Discussion section. The Results section should just report the findings as per the Methods section.

Discussion

Please ensure that the discussion is concise and follows this overall structure – sub-headings are not needed:

Statement of principal findings
Strengths and weaknesses of the study
Contribution to the body of knowledge
Strengths and weaknesses in relation to other studies
The meaning of the study – e.g. what this study means to clinicians and policymakers
Unanswered questions and recommendations for future research

Conclusions

This may be the only section readers look at, therefore write it carefully. Include primary conclusions and their implications, suggesting areas for further research if appropriate. Do not go beyond the data in the article.

Editorials

Guideline word limit: 1 000 words

These opinion or comment articles are usually commissioned but we are happy to consider and peer review unsolicited editorials. Editorials should be accessible and interesting to readers without specialist

knowledge of the subject under discussion and should have an element of topicality (why is a comment on this issue relevant now?) There should be a clear message to the piece, supported by evidence.

Please make clear the type of evidence that supports each key statement, e.g.:

expert opinion
personal clinical experience
observational studies
trials
systematic reviews.

CME (by invite only)

CME is intended to provide readers with practical, up-to-date information on medical and related matters. It is aimed at those who are not specialists in the field.

From January 2016, all CME articles will be printed in full in the *SAMJ*. Please try to adhere strictly to the guidelines on word count as we have a page limit for the print issue of the *SAMJ*. We reserve the right to place some tables and reference lists online if this is necessary for space.

In practice, this means that each CME topic usually covers two issues of the print issue of the *SAMJ*.

The guest editor, in consultation with the editor, is responsible for convening a team of authors, deciding on the subjects to be covered and for reviewing the manuscripts submitted. The suggestion is for 4 - 5 articles, although there is some room for flexibility contingent on discussions with the editor.

For queries about these guidelines please feel free to contact the CME editor, Dr Bridget Farham, by email (ugqirha@iafrica.com) or telephone (+27 (0)82 452 2860)

Review process

The guest editor reviews the articles and returns them to the CME editor for review and final approval.

Guest editorials

Guideline word limit: 1 000 words

Include the guest editor's personal details (qualifications, positions, affiliation, e-mail address, and a short personal profile (50words)).
If possible, include a photograph of the author(s) at high enough resolution for print. It is preferable to provide two guest editorials, one for each issue, so that the content of the articles in each issue is covered.

Articles

Guideline word limit: 2 000 - 3 000 words

Each article requires an abstract of ±200 words.
The editor reserves the right to shorten articles but will send a substantially shortened article back for author approval.

Personal details

Please supply: Your qualifications, position and affiliations and MP number (used for CPD points); Address, telephone number and fax number, and your e-mail address; and a short personal profile (50words)and a few words about your current fields of interest.

In Practice

Guideline word limit: 2 000 - 3 000words

This section includes articles that would previously have been accepted into the Forum section, and case reports.

In practice articles are those that draw attention to specific issues of clinical, economic or political interest regarding medicine and healthcare in southern Africa. They are assigned to a topic:

Case report
Clinical practice
Clinical alert
Issues in medicine
Issues in public health
Healthcare delivery
Medicine and the environment
Medicine and the law
Cochrane corner

An In Practice article should follow the following format – sub-headings are not necessary, but may be used for clarity:

Author affiliations and qualifications: to be the same as for Research. Provide all authors' names and initials, qualifications and full affiliations, and corresponding author.
Short abstract: does not need to be structured, but should capture the essential features of the article
Introduction: the reason for the article and the issue being addressed
Recent research, discussion, local policy around the issue – include your own research where appropriate
All statements should be referenced and, if opinion only, this should be stated
Discussion: how this article adds to the discussion around a particular topic
If a clinical practice or policy point is at issue, this needs to be emphasised, using a box with highlights if appropriate.

Essentially In practice is an opportunity for a more discursive approach to topics of clinical, economic or political importance in southern African health systems. It is not an opportunity to put forward unsubstantiated opinions!

Case reports

The *SAMJ* has recently started to accept case reports. The cases must come from Africa, preferably southern Africa unless the condition is common to all African countries, and must be either a completely new description of a clinical condition or result (use Google!) or a case that highlights important practice or management issues.

Please use the following format for case reports:

Title of case: do not include the words 'a case report' in the title
Summary/abstract: up to 150 words summarising the case presentation and outcome
Background: why is this case important and why did you write it up?
Case presentation: presenting features, medical, social, family history as appropriate
Case management: should be according to best practice, and if not, please explain why
Investigations, if relevant: save space by simply saying 'normal' if, for example, renal function was completely normal, rather than listing normal results, highlight the abnormal – or indeed the normal if this is clinically significant
Differential diagnosis, if relevant

Treatment, if relevant
Outcome and follow-up
Discussion – a VERY BRIEF review of similar published cases
Teaching points: 3 - 5 bullet points
References: as per the *SAMJ* house style
Tables and figures: keep to a minimum. Use clinical images where relevant – we need hi-res versions for print, and identifiable persons must have a consent form
Patient consent: please include a statement about patient consent to a written case report. This should be uploaded as a supplementary file.

Clinical trials

Guideline word limit: 4000 words

As per the recommendations published by the International Committee of Medical Journal Editors (ICMJE), clinical trial research is any research that assigns individuals to an intervention, with or without a concurrent comparison/control group to study the cause-and-effect relationship between the intervention and health outcomes. All clinical trials should be registered with the appropriate national clinical trial registry (or any international primary register, if relevant), and the trial registration number should be cited at the end of the abstract. Since 1st December 2005, all clinical trials conducted in South Africa have been required to be registered in the South African National Clinical Trials Register. The *SAMJ* therefore requires that clinical trials be registered in the relevant public trials registry at or before the time of first patient enrollment as a condition for publication. The trial registry name and registration number must be included in the manuscript.

Please refer to the general guidelines for all papers at the top of this article for additional requirements with respect to ethics approval, funding, author contributions, etc. The format of original research articles should be followed for reporting of clinical trial results.

Review articles

Guideline word limit: 4 000 words

These are welcome, but should be either commissioned or discussed with the Editor before submission. A review article should provide a clear, up-to-date account of the topic and be aimed at non-specialist hospital doctors and general practitioners.

Please ensure that your article includes:

Abstract: unstructured, of about 100-150 words, explaining the review and why it is important
Methods: Outline the sources and selection methods, including search strategy and keywords used for identifying references from online bibliographic databases. Discuss the quality of evidence.
When writing: clarify the evidence you used for key statements and the strength of the evidence. Do not present statements or opinions without such evidence, or if you have to, say that there is little or no evidence and that this is opinion. Avoid specialist jargon and abbreviations, and provide advice specific to southern Africa.
Personal details: Please supply your qualifications, position and affiliations, and MP number (used for CPD points); address, telephone number, and fax number, and your e-mail address; and a short personal profile (50 words) and a few words about your current fields of interest.

Correspondence (Letters to the Editor)

Guideline word limit: 500 words

Letters to the editor should relate either to a paper or article published by the SAMJ or to a topical issue of particular relevance to the journal's readership

May include only one illustration or table
Must include a correspondence address.

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Guideline word limit: 400 words

Should be about 400 words and must be accompanied by the publication details of the book. Provide a hi-res image of the cover if possible (with permission from the copyright holder).

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Should be offered within the first year of the practitioner's death, and may be accompanied by a photograph.

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Guidelines should always be discussed with the Editor prior to submission.

Because of the intensive review process required to ensure Guidelines are independent, evidence-based and free from commercial bias, they are usually published as a supplement to the *SAMJ*, the costs of which must be covered by sponsorship, advertising or payment by the guideline authors/association. We will provide a quote based on the expected length of the guideline and whether it is to appear online only, or in print, which must be accepted by the body putting the guidelines together before submitting the work to the SAMJ.

The Editor reserves the right to determine the scheduling of supplements. Understandably, a delay in publication must be anticipated dependent upon editorial workflow.

All guidelines should include a clear, transparent statement about all sources of funding and an explicit, clear statement of conflicts of interest of any of the participants in the guidelines about industry funding for lectures, research, conference participation etc.

All guidelines should be structured according to Agree II.

Please access this website before putting the guidelines together, download the Agree 11 instrument and use this to put the guidelines together.

All submitted guidelines will be sent to the local Agree II appraisal committee for review and must be endorsed by an appropriate body prior to consideration and all conflicts of interest expressed.

A structured abstract not exceeding 400 words (recommended sub-headings: *Background, Recommendations, Conclusion*) is required. Sections and sub-sections must be numbered consecutively (e.g. 1. Introduction; 1.1 Definitions; 2.etc.) and summarised in a Table of Contents.

Illustrations/photos/scans

If illustrations submitted have been published elsewhere, the author(s) should provide consent to republication obtained from the copyright holder.
Figures must be numbered in Arabic numerals and referred to in the text e.g. '(Fig. 1)'.
Each figure must have a caption/legend: Fig. 1. Description (any abbreviations in full).
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All illustrations (graphs, diagrams, charts, etc.) must be in PDF or jpeg form.
Ensure all graph axes are labelled appropriately, with a heading/description and units (as necessary) indicated. Do not include decimal places if not necessary e.g. 0; 1.0; 2.0; 3.0; 4.0 etc.
Scans/photos showing a specific feature e.g. *Intermediate magnification micrograph of a low malignant potential (LMP) mucinous ovarian tumour. (H&E stain).* –include an arrow to show the tumour.

Each image must be attached individually as a 'supplementary file' upon submission (not solely embedded in the accompanying manuscript) and named Fig. 1, Fig. 2, etc.

Tables

Tables should be constructed carefully and simply for intelligible data representation. Unnecessarily complicated tables are strongly discouraged.
Large tables will generally not be accepted for publication in their entirety. Please consider shortening and using the text to highlight specific important sections, or offer a large table as an addendum to the publication, but available in full on request from the author
Embed/include each table in the manuscript Word file - do not provide separately as supplementary files.
Number each table in Arabic numerals (Table 1, Table 2, etc.) and refer to consecutively in the text.
Tables must be cell-based (i.e. not constructed with text boxes or tabs) and editable.
Ensure each table has a concise title and column headings, and include units where necessary.
Footnotes must be indicated with consecutive use of the following symbols: * † ‡ § ¶ || then ** †† ‡‡ etc.

Do not: Use [Enter] within a row to make 'new rows':

Rather:
Each row of data must have its own proper row:

Do not: use separate columns for *n* and %:

Rather:
Combine into one column, *n* (%):

Do not: have overlapping categories, e.g.:

Rather:
Use <> symbols or numbers that don't overlap:

References

NB: *Only complete, correctly formatted reference lists in Vancouver style will be accepted. Reference lists must be generated manually and not with the use of reference manager software. Endnotes must* ***not*** *be used.*

Authors must verify references from original sources.
Citations should be inserted in the text as superscript numbers between square brackets, e.g. These regulations are endorsed by the World Health Organization,[2] and others.[3,4-6]
All references should be listed at the end of the article in numerical order of appearance in the Vancouver style (not alphabetical order).
Approved abbreviations of journal titles must be used; see the List of Journals in Index Medicus.
Names and initials of all authors should be given; if there are more than six authors, the first three names should be given followed by et al.
Volume and issue numbers should be given.
First and last page, in full, should be given e.g.: 1215-1217 **not** 1215-17.
Wherever possible, references must be accompanied by a digital object identifier (DOI) link). Authors are encouraged to use the DOI lookup service offered by CrossRef:

On the Crossref homepage, paste the article title into the 'Metadata search' box.

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Alongside 'url =' copy the URL between { }.

Provide as follows, e.g.: https://doi.org/10.7196/07294.937.98x

Some examples:

Journal references: Price NC, Jacobs NN, Roberts DA, et al. Importance of asking about glaucoma. Stat Med 1998;289(1):350-355. http://dx.doi.org/10.1000/hgjr.182

Book references: Jeffcoate N. Principles of Gynaecology. 4th ed. London: Butterworth, 1975:96-101.

Chapter/section in a book: Weinstein L, Swartz MN. Pathogenic Properties of Invading Microorganisms. In: Sodeman WA, Sodeman WA, eds. Pathologic Physiology: Mechanisms of Disease. Philadelphia: WB Saunders, 1974:457-472.

Internet references: World Health Organization. The World Health Report 2002 - Reducing Risks, Promoting Healthy Life. Geneva: WHO, 2002. http://www.who.int/whr/2002 (accessed 16 January 2010).

Legal references

Government Gazettes:

National Department of Health, South Africa. National Policy for Health Act, 1990 (Act No. 116 of 1990). Free primary health care services. Government Gazette No. 17507:1514. 1996.

In this example, 17507 is the Gazette Number. This is followed by :1514 - this is the notice number in this Gazette.

Provincial Gazettes:

Gauteng Province, South Africa; Department of Agriculture, Conservation, Environment and Land Affairs. Publication of the Gauteng health care waste management draft regulations. Gauteng Provincial Gazette No. 373:3003, 2003.

Acts:

South Africa. National Health Act No. 61 of 2003.

Regulations to an Act:

South Africa. National Health Act of 2003. Regulations: Rendering of clinical forensic medicine services. Government Gazette No. 35099, 2012. (Published under Government Notice R176).

Bills:

South Africa. Traditional Health Practitioners Bill, No. B66B-2003, 2006.

Green/white papers:

South Africa. Department of Health Green Paper: National Health Insurance in South Africa. 2011.

Case law:

Rex v Jopp and Another 1949 (4) SA 11 (N)

Rex v Jopp and Another: Name of the parties concerned

1949: Date of decision (or when the case was heard)

(4): Volume number

SA: SA Law Reports

11: Page or section number

: In this case Natal - where the case was heard. Similarly, (C) woud indicate Cape, (G) Gauteng, and so on.

NOTE: no . after the v

Other references (e.g. reports) should follow the same format: Author(s). Title. Publisher place: Publisher name, year; pages.

Cited manuscripts that have been accepted but not yet published can be included as references followed by '(in press)'.

Unpublished observations and personal communications in the text must **not** appear in the reference list. The full name of the source person must be provided for personal communications e.g. '...(Prof. Michael Jones, personal communication)'.

From submission to acceptance

Submission and peer-review

To submit an article:

Please ensure that you have prepared your manuscript in line with the SAMJ requirements. The following are required for your submission to be complete:

Anonymous manuscript (unless otherwise stated)

Manuscript

Any supplementary files: figures, datasets, patient consent form, permissions for published images, etc.

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Peer-review process

Production process

Please note that there is a 6-month waiting time for publication, once an article has been sent to the production team.

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The CE copyedits in Word, working on house style, format, spelling/grammar/punctuation, sense and consistency, and preparation for typesetting.

If the CE has an author queries, he/she will contact the corresponding author and send them the copyedited Word doc, asking them to solve the queries by means of track changes or comment boxes.

The authors are typically asked to respond within 1-3 days. Any comments/changes must be clearly indicated e.g. by means of track changes. Do not work in the original manuscript - work in the copyedited file sent to you and make your changes clear.

The CE will finalise the article and then it will be typeset.

Once typeset, the CE will send a PDF of the file to the authors to complete their final check, while simultaneously sending to the 2nd-eye proof-reader.

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Errata and retractions

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Send an email to publishing@hmpg.co.za, including the following details:

Journal, volume and issue to which article was submitted/in which article was published
Article title and authors
Description of reason for withdrawal/retraction.

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Reviewer comments and author responses

Reviewer A:

Well written - retrospective audit of cardiac transplants done over 22 years in a state sector hospital

Major revision - study methodology - Data collection and management - How was social suitability decided on. There is a need to elaborate on this. Was there a standardized questionnaire or social worker report? Was there objective measures like a scoring system or subjective means

Discussion - elaborate on the above in discussion as well once you have stated how social ineligibility was ascertained in candidates referred for htx. this warrants a paragraph at least with limitations of methods employed and more objective measures which could be utilised in future. scoring system etc which would provide a more objective measure of assessment of social circumstances. Also was there a change in assessment/criteria between the 2 decades.

Supplementary Table 1 Reason for Recipient Decline (2010 to 2019) - This table doesn't make sense, the percentages in the first part add up to 220% (need to clarify or exclude the first aspect) - understand you stated that some recipients were declined for more than 1 reason but you need to somehow clarify that in the figure legend too

Conclusion: better outcomes are mentioned despite no results in the manuscript on outcomes. adding outcomes of patients who received htx would make this a more robust study. Would be great if this could be added

Minor revisions : Abstract 3rd line - pathway to optimise

Study setting - "low socio-economic background" - provide a reference for this statement

Results - Transplant activity - (grammatical and word order errors which have been corrected in bold

Table S1 outlines the reasons for **declining recipients** data captured from 2010 – 2019. Social factors, obesity and substance abuse accounted for cases being declined for transplantation.

Of the 429 donor referrals, 139 (32.4%) **were accepted for procurement, with less than one-third of the referred donors meeting the criteria for organ procurement. The most common reason for declining a potential donor was the lack of a suitable recipient due to a recipient-donor mismatch, n=194 (66.9%) (Figure 4)., the years 1998 and 2000, in particular h**ad the highest mismatch of suitability with 80% of the referred organs being deemed unsuitable for transplant in 2012. Organ unsuitability was the second most cause of declining an organ and accounted for 86

Once revisions are done - this paper would provide good inside into htx in South Africa in a state-sector hospital. Recommendation: Revisions Required

Letter of acceptance from the journal

Editor Decision

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation

samaweb@samedical.org Wed, 25 Oct 2023, 09:05

to me

The following email was sent to Tim Pennel from South African Medical Journal regarding Two decades of recipient and donor referrals for heart transplantation to Groote Schuur Hospital: a retrospective study.

You are receiving a copy of this notification because you are identified as an author of the submission. Any instructions in the message below are intended for the submitting author, Tim Pennel, and no action is required of you at this time.

Dear authors

We have reached a decision regarding your submission to South African Medical Journal, "Two decades of recipient and donor referrals for heart transplantation to Groote Schuur Hospital: a retrospective study".

Our decision is to: Accept Submission

Thank you for submitting your work to the journal.

Kind regards

{$editorialContactSignature}