

Report on the Proceedings of the 2nd PASCAR/World Heart Federation Workshop on the Prevention of Rheumatic Fever and Rheumatic Heart Disease in Africa

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Venue: Baringo Room, Grand Regency Hotel, Nairobi, Kenya

Convenor: Bongani Mayosi, South Africa (bongani.mayosi@uct.ac.za)

Delegates: Canada: Salim Yusuf; Cuba: Porfirio Nordet; Egypt: Abul-Fadl Azza, Salah Zaher; Ethiopia: Abraham Haileamlak; France: Daniel Sidi; Ghana: Albert Amoah, Kwanin Francis; Kenya: Fredrick Bukachi, Elizabeth Gatumia, Angela Mwita, Stephen Ogendo, Christine Yuko-Jowi; Mozambique: Albertino Damasceno, Ana Olga Mocumbi; Nigeria: Kamilu Karaye, Okekwuchu Ogah, Samuel Omokhodion; Rwanda: Joseph Mucumbitsi; Sierra Leone: James Russell; South Africa: Anne Croasdale, Mark Engel, Bongani Mayosi, Jimmy Volmink; Sudan: Huda ElHassan, Elamin Elnur, Ahmed ElSayed, A Nogoud; Switzerland: Helen Alderson, Susan Davenport; Tanzania: Kemilembe Tibazarwa; USA: Gene Buckman, Marilyn Hunn; Zambia: Jithan Koshy; Zimbabwe: Livion Ngwenya.

Introduction

The 2nd Workshop on the Prevention of Rheumatic Fever (RF) and Rheumatic Heart Disease (RHD) in Africa was sponsored by the Rheumatic Fever Council of the World Heart Federation (WHF) and organised by the Pan African Society of Cardiology (PASCAR). Marilyn Hunn, Director for Science Operations at the WHF, welcomed the 35 delegates from 18 countries [14 in Africa] who attended the lively and highly interactive 1-day meeting which took place as a satellite event of the PASCAR 'All Africa All Heart' Conference.

The objective of the Workshop was to evaluate the progress made in the implementation of the A.S.A.P. Programme for the prevention of RF and RHD in Africa since the 1st PASCAR/WHF All Africa Workshop at the Drakensberg, South Africa in October 2005 [1, 2]. The other objectives of the meeting were to review the work of other organisations who are concerned with RF and RHD prevention in Africa, and to identify priorities for action in the implementation of the A.S.A.P. Programme over the next 18-36 month period.

Objective 1/Session1: Progress Report since the Drakensberg Declaration

The first session of the Workshop consisted of reports on progress made at the four A.S.A.P. Demonstration Projects (Egypt, Ethiopia, Ghana, and South Africa), and presentations on the prospects for the extension of the A.S.A.P. Programme to Mozambique and Rwanda.

Egyptian A.S.A.P. Demonstration Project

Salah Zaher, the Country Director for Egyptian A.S.A.P. Demonstration Project, reported that two sites had been established in Alexandria and Cairo. The Egyptian Project has links with several organisations including the Society of Friends of Children with RHD, the Egyptian Society of Paediatric Cardiologists, and the Human Information Technology (HIT) laboratory.

The HIT laboratory provides facilities for electronic registration of cases, audiovisual material, and patient support. Funding is being sought from the Alexandria Metropolitan Rotary Club to support A.S.A.P. activities in Egypt. The achievements of the Egyptian A.S.A.P. Demonstration Project are as follows:

Awareness raising: Arabic information brochures, posters, and a film have been produced for patients and the public. A 20-page RHD guideline for doctors and a guideline on how to give penicillin injections have been produced. Training seminars for healthcare workers are planned.

Surveillance: a register of 680 cases of RF indicates that 38% have no RHD, 42% have RHD requiring medical treatment, and 22% require surgery. It is estimated that there are 100,000 affected children in Egypt, 22,000 of whom need surgery. Incidence and prevalence studies are planned.

Advocacy: efforts are being made to form a National Advisory Committee on the Control of RF and RHD to influence policy on the treatment and prevention of the disease.

Prevention: no new action in this area.

Ethiopian A.S.A.P. Demonstration Project

Abraham Haileamlak, the Country Director for the Ethiopian A.S.A.P. Demonstration Project, is a professor of paediatrics at the Jimma Teaching Hospital, the only tertiary hospital for 15 million people in South East Ethiopia. The Demonstration Project will be located in the Gilgel Gibe Field Research Centre which covers 1 urban town and 9 rural areas (or kelebes) with a population of 42,290 living in 8,852 households. There are 20,852 children under the age of 15 years in this area. The initial activities of this Demonstration Project are as follows:

Awareness raising: training of health workers on the primary and secondary prevention of RF has commenced.

Surveillance: 138 children with RF/RHD are registered at the Teaching Hospital Clinic. Thirty five (25%) patients have severe RHD requiring surgery which is not available in Ethiopia. Follow-up is difficult; 69 (50%) of the patients diagnosed with RHD have been lost to follow-up.

Funding is required to develop the A.S.A.P. programmes at this Demonstration Site, and to find innovative ways of helping the children who are severely affected by RHD.

Ghanaian A.S.A.P. Demonstration Project

Albert Amoah, the Country Director for the Ghanaian A.S.A.P. Demonstration Project, has identified three sites for implementation of the programme in Ghana: Chorkor/Nima (urban slum), Labone/Cantoments (affluent suburb), and Kpone-on-sea (rural fishing/farming community). Ethical approval has been granted, and the national Ministry of Health has provided a letter of support for the project. The main activity has been the **surveillance** of 1400 children by cardiac auscultation which has revealed an RHD prevalence of 19 cases per 1000. A portable echocardiography machine has subsequently been acquired for the surveillance studies. Funding is required to develop the full range of A.S.A.P. activities at this site.

South African A.S.A.P. Demonstration Project

Mark Engel, Research Fellow at the Vanguard Population Demonstration Project in Cape Town, reported on the activities of the past 18 months as follows:

Awareness raising: the South African national Rheumatic Fever week (August 2006) was marked by activities aimed at the education of school children in the Vanguard Population (Langa and Bonteheuwel townships of Cape Town) about the link between untreated streptococcal sore throat and RF. These activities included drama in schools, radio interviews, newspaper articles, and putting up banners at health facilities. ‘Hartie’, the mascot of the Heart and Stroke Foundation of South Africa, participated in these activities.

Surveillance: a portable echocardiography machine donated by the WHF has allowed the commencement of pilot RHD surveillance study in Langa. This study of 60 children found 2 cases of RHD, suggesting that the prevalence may be as high as 30/1000. Additional funding has been obtained to purchase a customized mobile clinic for use in the surveillance studies of RHD in the Vanguard population site.

Advocacy: discussions are in progress with the national Department of Health to update the national guideline for the prevention of RF/RHD. The World Health Organisation (WHO) has called upon countries with the endemic RF/RHD to form National Advisory Committees on the Control of RF/RHD[3]; it is the intention of the SA Project to propose to the national Department of Health to comply with this WHO guideline.

Prevention: no new activities.

Mozambique and Rwanda to join the A.S.A.P. Programme

Ana Olga Mocumbi (Mozambique) and Joseph Mucumbitsi (Rwanda) expressed a strong interest and readiness to join the A.S.A.P. Programme. In Mozambique, there are two potential sites where a demonstration project could be located: Maputo (urban site), and Inharrime province (rural site). Ana Olga pointed out that RHD surveillance by echocardiography has already been conducted which reveals a high prevalence of 30 cases / 1000 of RHD among urban school children (New Engl J Med 2007; in press). In Rwanda, there is a national network for the management of HIV/AIDS which uses the internet and cellular phones (TRACNET) which could be used for the A.S.A.P. Project.

Objective 2/Session 2: Activities of other organisations in RF/RHD control in Africa

There are at least three other organisations that are concerned with the control and treatment of RF/RHD in Africa: (1) Kenyan-Heart National Foundation (and the Africa Heart Network), (2) The Society of the Friends of Children with Rheumatic Heart Disease, and (3) Chaîne de l’Espoir

Kenyan-Heart National Foundation (member of Africa Heart Network)

Elizabeth Gatumia gave a comprehensive presentation on the education programmes of the Kenyan-Heart National Foundation (K-NHF) which focuses on a holistic approach to improving heart health. The K-NHF use public media (including the painting of walls of school buildings with public health messages on RF prevention – the ‘Talking Walls of Kenya’, talks and seminars as the central planks of their campaigns. They have produced an educational booklet, and are involved in an active seminar programme for teachers,

nurses, church representatives, and clinicians. They have also been helping to improve the record keeping system. The K-HNF is collaborating with a Technical Advisory Team of the national Ministry of Health on the prevention of RF/RHD in the country.

Society of Friends of Children with RHD

Azza Abul-Fadl made a detailed presentation on the psychosocial care of children with RHD in Egypt. This work is intended to address the social needs of children with RF/RHD. The proposal for the comprehensive care of these children, which is summarised in the congress publication[4], is applicable to all programmes for the care of patients with the disease in the world.

Chaîne de l'Espoir

Daniel Sidi, the Vice President of Chaîne de l'Espoir, gave a superb overview of the cardiac surgery missions and the areas of activity of Chaîne de l'Espoir in Africa. He said what was needed was (1) a rural and urban network of treatment and control programmes which use portable echo machines, such as the MicroMaxx echo machine which can be obtained by charitable organisations at a cost of US\$5000, (2) early screening for RHD as treatment and surgery for established disease was palliative, (3) use of the network established by Chaîne de l'Espoir by the A.S.A.P. Programme and others of like mind, (4) training of technologists, nurses, and doctors in the use of echocardiography for screening and the appropriate treatment and prevention of RHD, and (5) research to determine whether the treatment of early RHD lesions with prophylactic penicillin is cost-effective.

Objective 3/Session 3: What is the action plan for the A.S.A.P. Programme for the next 18 years?

The final session consisted of a group discussion in which the proceedings of the day were summarized by Porfirio Nordet, and priorities for action were identified. The priorities of the A.S.A.P. Programme over the following 18 months may be summarized as follows:

1. The improvement of the co-ordination of A.S.A.P. activities and networking with fraternal organisations, such as Heart Foundations, Society of Friends of RHD, and Chaîne de l'Espoir. This would be achieved through:
 - a. Engagement of *Continental Coordinator* for the A.S.A.P. Programme.
 - b. Creation of a common *Database*.
 - c. Strengthening of the *Epidemiological and Research* base of the project.
2. The standardization of the protocols and procedures that are used for registers, prevalence, and incidence studies at the various Demonstration Projects by:
 - a. Creation of a prospective register of a large African cohort from an expanded number of sites.
 - b. Adoption of a standard protocol for the surveillance and incidence studies from an expanded number of sites

3. The formation of National Advisory Committees on RF/RHD by the national ministries of health is a matter of priority, in response to the call by the WHO Expert Panel of 2004[3].

It was felt by all that a 1-day workshop did not do justice to the work of the programme. The next review and planning meeting should be run over 2-3 days.

The Workshop was closed by Albert Amoah, President of PASCAR, who thanked the delegates for attending, and the Rheumatic Fever Council of the WHF for funding the Workshop.

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References

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2. Mayosi B, Robertson K, Volmink J, Adebo W, Akinyore K, Amoah A, Bannerman C, Biesman-Simons S, Carapetis J, Cilliers A *et al*: **The Drakensberg declaration on the control of rheumatic fever and rheumatic heart disease in Africa.** *S Afr Med J* 2006, **96(3 Pt 2)**:246.
3. 923 WTRS: **Rheumatic fever and rheumatic heart disease: Report of a WHO expert panel, Geneva 29 October -1 November 2001.** Geneva: WHO; 2004.
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