Haemophilia Treatment A Global Perspective

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PREVALENCE OF HEMOPHILIA

- Hemophilia A 105/Million males
- Hemophilia B 28/Million males
- Haemophilia A and B:
- 399,000 people
- 200,000 severe
- 105,000 known to WFH
- Von Willebrands: 600,000 people
 - : 38,000 known



Global Reality

- 75% not Diagnosed
- Many die in Childhood
- Hemophilia NOT a priority with Government -rare, expensive
- Lack of infrastructure, training, Education
- Cost of treatment prohibitive for individuals
- A safe supply of affordable replacement therapy currently reality only in developed countries



WFH GLOBAL DATA 2001/2002

Developed Countries

Country	Population (millions)	% Diagnosed	No. HTC	<u>Per Capita</u> <u>FVIII iu</u>
Australia	19	95	15	3.0
USA	278	87	140	3.4
Germany	82	82	6	5.5

WFH Global Survey, 2002



WFH GLOBAL DATA 2001/2002

Emerging Countries

Country	Population (millions)	% Diagnosed	No. HTC	<u>Per Capita</u> <u>FVIII iu</u>
Iran	63	82	10	0.5
Russia	146	81	4	0.1
Egypt	63	75	7	0.1
South Afri	ca 42	52	10 WFH Glo	0.6 bal Survey, 2002



WFH GLOBAL DATA 2001/2002

Developing Countries

Country	Population (millions)	% Diagnosed	No. HTC	<u>Per Capita</u> <u>FVIII iu</u>
India	998	12	56	0.01
China	1227	5		
Indonesia	207	4	8	0.01
Bangladesh	n 128	2	WFH Globe	0.002 al Survey, 2002



COST OF REPLACEMENT THERAPY

• **Developed countries** (WFH data):

UK 120,000 I.U

Average cost US\$0.83 I.U.

Cost per person US\$100,000 p.a.

Country GNP\$ Income Multiple

Australia 20,530 5

USA 29,080 3.3



COST OF REPLACEMENT THERAPY

- Developing Countries
- Minimum on-demand 30,000 I.U.

Cost US\$0.25 I.U.

Cost per person US\$7,500 p.

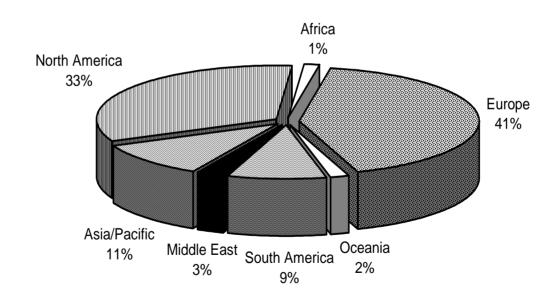
Country	GNP\$	Income Multiple
India	370	20
Bangladesh	360	20
Indonesia	570	13
China	860	9

8



Global use of Factor Concentrate

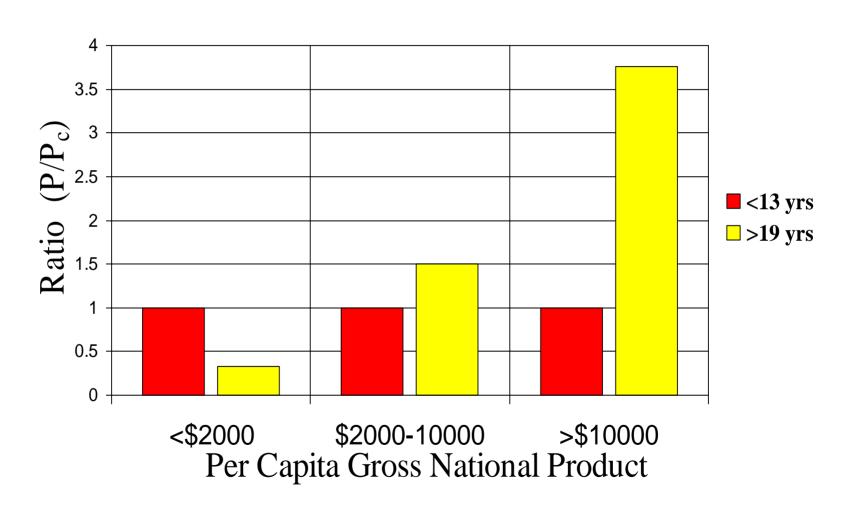
REGIONAL DISTRIBUTION OF FACTOR VIII PLASMA-DERIVED AND RECOMBINANT (UNITS)



Total 2000: 3.7 billion international Units



RELATIONSHIP OF ECONOMIC CAPACITY AND NUMBER OF ADULT HEMOPHILIA PATIENTS





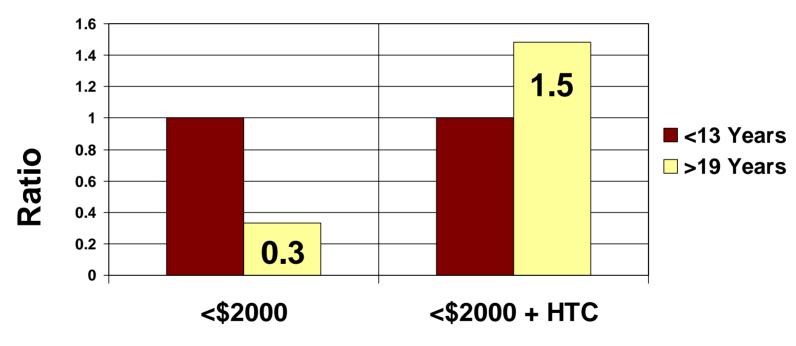
Improving Survival into Adulthood

- Government support
- Hemophilia program within National health system
- Network of Treatment centres
- Provision of basic blood products
- Provision of concentrates
- Payment by Government/Social security/insurance



RELATIONSHIP OF ECONOMIC CAPACITY AND NUMBER OF ADULT HEMOPHILIA PATIENTS:

EFFECT OF HEMOPHILIA PROGRAMS



Per Capita Gross National Product



Real Issue

Provision of safe, efficacious, affordable replacement therapy in adequate amounts as part of a sustainable national Hemophilia program.



Improving Quality of Life

- Government support
- Network of treatment centres-decreases morbidity and mortality
- Access to concentrate for all
- Clinical monitoring of home therapy
- High users/surgery/inhibitors included
- UK-Treatment by postcode
- USA-Lifetime insurance ceilings
 - wide variation in distribution and reimbursement mechanisms



Role of Government?

- National treatment strategy
- Ensure adequate provision of replacement therapy on a National basis
- Predict demand and supply required
- Expensive cases covered by central fund
- Plan for Emergencies
- National Tender/Central purchasing mechanism



National Tenders

- Brings appropriate expertise together
- Improved selection criteria
- Improved assesment of products
- National assesment of demand and use
- Allows planning of cost and use
- Contingency planning
- Cost effective
- More uniform care nationally-optomises
- Allows manufacturers to predict demand and ensure supply



National Tenders

- Limits clinicalfreedom?
- Limits availability of different products?

- Canada
- Ireland
- Brazil
- England



Canada

- 10 Provinces-1 Tender
- Tender: -recombinant FVIII/FIX

 -Plasma derived FVIII/FIX
 -IVIG, Albumin
 -Toll Fractionation

Participants: CBS,Hemaquebec (6) Clinicians (2) Consumers (2)

3 Year Tender



Canada

- Products licenced by Health Canada
- At least 2 products in each category where possible
- Clinical freedom maintained-90/95% Tender
- Contingency planning and distribution mechanisms greatly assisted with minimising impact of product shortages in 2001



Influence of Key Regulators

- FDA and EMEA play vital role Globally
- Decisions monitored by many countries
- Decisions impact products used in many countries
- Licencing confers reassurance



WFH Regulatory Guidebook

Published to assist regulators to assess products not licenced by FDA or EMEA.

GUIDE FOR THE ASSESSMENT OF CLOTTING FACTOR CONCENTRATES FOR THE TREATMENT OF HEMOPHILIA



Prepared by Albert Farrugia, BSc, PhD

for the World Federation of Hemophilia





Consultation

- Decision criteria
 - -Safety, efficacy, supply, cost
 - -evidence, data, science
 - -Clinical reality
- Poor Decision criteria
 - -Nationalism
 - -Unrealistic timelines, aspirations
 - -Emotion



Global consultation-Objectives

- Consensus of understanding-if not policy
- Early warning system
- Optomise communication via regular contact
- Global ramifications of regulatory issues and decisions discussed and understood



Global Consultation

PARTICIPANTS

- WFH
- FDA
- EMEA
- WHO
- HHS
- DG SANCO
- PPTA

- EPFA
- IPOPI

REGIONAL

- European network
- US network



Global Consultation

Standard Agenda

- Legislation-Directives, Guidelines, Regulations
 -EU, USA, Other
- Safety issues
- Availability issues
- Economic issues
- Global perspectives



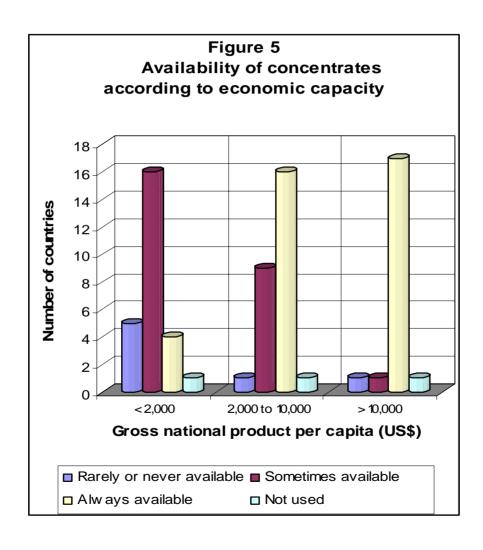
Thank You





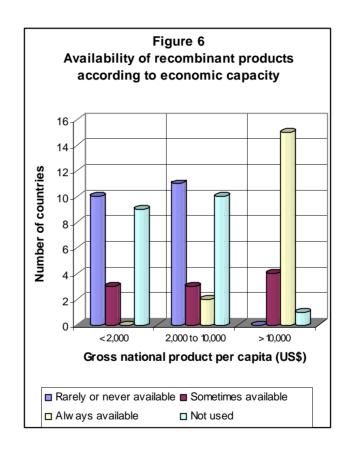


Availability of factor Concentrates





Availability of Recombinant Factor Concentrates





Ireland

- Product selection and monitoring advisory group
- Set up under statutory instrument
- Recommended by Tribunal of inquiry
- Assisted with supply shortages in 2001/2002



Ireland

Participants

- Health officials (2)
- Regulatory authority (1)
- Clinicians (3)
- Hemophilia society (2)
- National transfusion service (2)
- Virologist (1)
- External experts (2)



Ireland

Tender

- Recombinant FVIII/FIX
- Plasma derived rarer factors
- Therapy for inhibitors
- EU procurement rules
- 2 year process



Brazil/England

Brazil

- Participants:
- Health ministry
- Clinicians
- Hemophilia society
- -?products licenced by FDA or EMEA

England

- Tender for Recombinant-
- -specific amount of money available, not for a specific amount of concentrate
- Age banding



Consultation

- Timely, appropriate
- Involve consumers-lifetime users
- Involved in National tenders

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EU Blood Directive 2002/98/EC

- -Aspirations good, ignored reality
- -Encourage voluntary unpaid donations
- -Do not ban imports/limit supply
- -Europe not self sufficient
- -UK using US plasma due to vCJD risk