INTRODUCTION

The Health Matters Advisory Committee, a statutory body constituted under the Health Act 63 of 1977, appointed a National Intravenous Infusion Rationalisation Committee, consisting of experts from the medical and pharmaceutical professions to investigate and make recommendations regarding the availability and use of intravenous solutions in South Africa with the view to promoting patient safety, simplifying therapy for the clinicians, and providing economy for both the producer and the consumer. When the recommendations are implemented the range of formulations will be reduced from 103 to 41 (See Table 1) and containers from over 70 to 21. Considerable modification will result in improvements and ultimate standardisation of administration sets and packs.

Comment, criticism and advice will be welcomed by the Committee.

NATIONAL COMMITTEE’S MANDATE

A Government appointed National Committee was given the following mandate:

To rationalise and standardise for economic reasons:

(a) The number of formulations of intravenous fluids henceforth to be the only available solutions for use in the Republic of South Africa.

(b) The number of container sizes — which will be limited.

(c) The number of administration sets.

(d) To attempt, for logical reasons, at grouping the available formulations to meet various clinical indications.

RECOMMENDATIONS

Volumes

1 000 ml only will be adopted as standard size.

1 000 ml pack to accept a 100 ml overfill and the 200 ml to accept a 50 ml overfill in order to accommodate admixtures as required.

Certain imported solutions (e.g. Intralipid) to be acceptable as supplied e.g. in 500 ml.

Pack material

Preference will be given to clear plastic containers wherever possible and glass containers will no longer be used except in those cases where the contents is incompatible with plastic.

Markings and labels

All intravenous solutions to be labelled in black or dark blue except that red labels or markings will signify potentially hazardous solutions such as:

— 5% saline solution;
— sterile water;
— 50% dextrose solution;
— peritoneal dialysis solutions;
— solutions for cystoscopy or irrigation;
— amino acid and intralipid solutions.

Sterile pyrogen-free solutions which are not for intravenous use are preferably to be packed in rigid, screw cap, easy-pour bottles which are not compatible with standardised intravenous administration sets.

Energy substrates

1. Carbohydrate: Dextrose is considered to be the safest, and to replace all other sugars such as fructose and invert sugar. Higher alcohols will no longer be acceptable.

2. Fats: One intravenous fat emulsion, that is 10% and 20% Intralipid is currently acceptable.

3. Amino acids: only synthetic laevo-rotatory amino acid solutions will be acceptable at the moment but acceptable specialised new solutions are anticipated in the near future and will need registration with the M.C.C. Local manufacturers of intravenous solutions have agreed not to produce formulations without consultation with and agreement of the Rationalisation Committee. It is not the intention of the Committee to stifle development and progress in the intravenous fluids field but merely to keep costs to a minimum and to eliminate outdated unnecessary duplicating solutions.

Maart 1982

CURATIONIS 53
TABLE 1 SPECIAL INTRAVENOUS SOLUTIONS

<table>
<thead>
<tr>
<th>INDICATIONS</th>
<th>FLUID</th>
<th>VOLUME</th>
<th>PACK</th>
<th>Na</th>
<th>K</th>
<th>Ca</th>
<th>Mg</th>
<th>CI</th>
<th>Lact</th>
<th>HCO₃⁻</th>
<th>HPO₄²⁻</th>
<th>Dextrose</th>
<th>Fat</th>
<th>Amino Acid</th>
<th>Kilojoules/litre</th>
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<tbody>
<tr>
<td>I. Resuscitation</td>
<td>Ringer Lactate</td>
<td>1 000</td>
<td>Plastic</td>
<td>131</td>
<td>5.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>107</td>
<td>29</td>
<td>-</td>
<td>50</td>
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<td>840</td>
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<tr>
<td>(Blood, plasma loss)</td>
<td>+ 5% Dextrose</td>
<td>200</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>I. Rehydration</td>
<td>Balanced Electrolyte</td>
<td>1 000</td>
<td>Glass</td>
<td>130</td>
<td>4</td>
<td>1.5</td>
<td>109</td>
<td>-</td>
<td>-</td>
<td>28</td>
<td>-</td>
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<tr>
<td>Solution</td>
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<td>Plastic</td>
<td>131</td>
<td>5.4</td>
<td>-</td>
<td>-</td>
<td>107</td>
<td>29</td>
<td>-</td>
<td>50</td>
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<td>&quot;Balsol&quot;)</td>
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<td>Ringer Lactate</td>
<td>1 000</td>
<td>Plastic</td>
<td>154</td>
<td>5.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>154</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>(Short term I/V sustainence)</td>
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<td>0.9% + 5% Dextrose</td>
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<td>118</td>
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<td>IV Hyperalimentation</td>
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<td>Glass</td>
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<td>Serum 10%</td>
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<td>Glass</td>
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<td>Intralipid 20%</td>
<td>20%</td>
<td>100</td>
<td>Glass</td>
<td>20</td>
<td>4.6%</td>
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<td>20</td>
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<tr>
<td>Dextrose 20%</td>
<td>20%</td>
<td>100</td>
<td>Glass</td>
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<td>Dextrose 50%</td>
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<td>8360</td>
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<tr>
<td>Synthetic L-Amino acid—4.6% solution with electrolyte (red label)</td>
<td>500</td>
<td>Glass</td>
<td>55</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>Synthetic L-Amino acid—7.10% solution with electrolytes (red label)</td>
<td>500</td>
<td>Glass</td>
<td>85</td>
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<tr>
<td>VII Other</td>
<td>Sterile water for injection (red label)</td>
<td>200</td>
<td>Plastic</td>
<td>154</td>
<td>154</td>
<td>-</td>
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<tr>
<td>Dextran 40—10% in Saline</td>
<td>500</td>
<td>Glass</td>
<td>Plastic</td>
<td>154</td>
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<td>-</td>
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<tr>
<td>Dextran 70-10% in Saline</td>
<td>500</td>
<td>Plastic</td>
<td>Plastic</td>
<td>154</td>
<td>-</td>
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<td>-</td>
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</table>
STANDARDISATION OF ADMINISTRATION SETS

This will be the subject of a future report.

This Committee wishes to thank Prof. H.A. Grové, Director of Transvaal Hospital Services for organising this investigation, as well as the South African manufacturing firms of intravenous fluids, whose impartial contributions made our task much easier. Comments, criticism and advice will be welcomed by the Committee.

NATIONAL RATIONALISATION COMMITTEE FOR INTRAVENOUS SOLUTIONS

G.W. Schepers B.Sc. M.B.Ch. (Chairman); Assistant Director, Hospital Services, T.P.A., Pretoria
J.B. Blignaut D.I.P, PHARM. (Secretary); Chief Pharmaceutical Services, T.P.A., Pretoria
H.C. Settel M.B.B.Ch. D.MED. — Physician, Johannesburg Hospital, T.P.A., Johannesburg
J.E. Coombriek M.B.B.Ch. D.A. — Anaesthetist, Gro-Rankuwa Hospital, State Health Department
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P.H. Krysnaw Cilliers MB.B.Ch. F.C.S. (SA) M.MED. (Chir) — Surgeon, P.A.O., Bloemfontein
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† C.de W.Vos MB.B.Ch. — Superintendent, Tygerberg Hospital, C.P.A. (Previous Chairman) Cape
† A.W. Durandt D.I.P, PHARM. (Previous Secretary) C.P.A., Cape
N.D. Burman MB.B.Ch. M.R.C.P — Physician, C.P.A., Cape
J.C. Thom MB Ch. M.MED. — Paediatrician, University of Stellenbosch, Cape
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† T.J.V. Vois M.B.B.Ch. D.A.R.C.P Lond. RCS Eng., Paed. Anaesthetist Red Cross Hospital, C.P.A., Cape
† (By invitation)
† (Previous members)

REPRESENTATIVES FROM MANUFACTURING FIRMS

SABAX: H. Bernstein, F. Erasmus, K. Frizelle.
LABETHICA: F. Noades, P. van der Merwe, B. Sachs, I. Robertson, M. van der Zwan.

SYMPOSIUM PAPERS SIMPOSIUM REFERATE

The papers delivered at the symposia held in celebration of the 25th anniversary of the degree course in Nursing at the University of Pretoria, are available from the publication section of the S.A. Nursing Association (Private Bag X105, Pretoria, 0001). These addresses are recommended for stimulating ideas on nursing in the South African context.

The papers are published in the language in which they were delivered and appear in three parts:

NURSING PREPAREDNESS — R3,95

Includes preparedness in the home such as home accidents and emergency nutrition as well as preparedness during disaster situations which deals with the clinical evaluation and transportation of patients and how to handle various types of injuries.

CREATIVITY IN NURSING EDUCATION — R3,00

These papers deal with creativity in giving and evaluating nursing education. They were written by prominent South African nurses.

THE QUALITY OF PATIENT CARE — R3,15

The importance of the following in providing quality patient care are discussed: educational objectives, standards of patient care, measuring quality, job satisfaction, creative nursing administration and research.

The price of a complete set of papers is R10,00.

DIE referate van die simposia, wat gehou is ter viering van die 25ste verjaardag van die graadkursus in verpleegkunde aan die Universiteit van Pretoria, is by die publikasieafdeling van die S.A. Verpleegstersvereniging, (Privatask X105, Pretoria, 0001), beskikbaar.

Die referate word gepubliseer in die taal waarin hul gelewer is en verskyne in drie dele.

VERPLEEGKUNDIGE PARAATHEID — R3,95

Sluit paraatheid in die huis soos tuisongelukke en noodvoeding in, asook paraatheid tydens "n noodstasie wat handel oor die kliniese evaluering en vervoer van pasiëntie sowel as die hantering van verskillende tipes berosings.

KREATIWITEIT IN VERPLEEGONDERWYS — R3,00

Die referate handel oor vindingrykheid in die gee en evaluering van verpleegonderrig en is gelewer deur vooraanstaande Suid-Afrikaanse verpleegopvoedkundiges.

DIE GEHALTE VAN PASiëNTSORG — R3,15

Die belang van die volgende vir die lewering van 'n goeie gehalte van pasiëntsorg is bespreek: opvoedkundige doelwitte; pasiëntsorg-standaarde; kwaliteitsmeting; werksbevrediging; vindingryke verpleegadministrasie en navorsing.

Die prys vir 'n volledige stel van die referate is R10,00.