Toolkits for Strengthening Primary Health Care

January 2005

Prepared by:

PHRplus/Albania

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In collaboration with:
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<td>CPG</td>
<td>clinical practice guideline</td>
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<td>CQI</td>
<td>continuous quality improvement</td>
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<td>DAN</td>
<td>data access nodes</td>
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<tr>
<td>GP</td>
<td>general practitioner</td>
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<tr>
<td>HII</td>
<td>Health Insurance Institute</td>
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<td>HIS</td>
<td>health information system</td>
</tr>
<tr>
<td>HIV</td>
<td>human immunodeficiency virus</td>
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<tr>
<td>ISI</td>
<td>information system infrastructure</td>
</tr>
<tr>
<td>LAN</td>
<td>local area network</td>
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<tr>
<td>MCQ</td>
<td>multiple-choice questionnaire</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>NGO</td>
<td>non-governmental organization</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
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<td>PHRplus</td>
<td>Partners for Health Reform plus Project</td>
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<tr>
<td>QA</td>
<td>quality assurance</td>
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<tr>
<td>QI</td>
<td>quality improvement</td>
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<tr>
<td>TB</td>
<td>tuberculosis</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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Purpose of the Toolkits

In Albania, the PHRplus Project developed and tested a series of tools designed to introduce family medicine concepts and strengthen primary health care (PHC) services. Toolkits were developed and tested in four pilot PHC centers in one region, and are now ready to be used in additional PHC settings in Albania or adapted for use elsewhere. PHC facility managers and projects supporting the strengthening of PHC services will find the toolkits useful reference materials as they develop their own strategies and tools to improve quality of care and monitor and evaluate PHC strengthening efforts.

Description of the Toolkits

This series comprises three toolkits: (1) PHC Service Delivery Toolkit; (2) PHC Quality Improvement (QI) Toolkit; and (3) PHC Health Information Systems (HIS) Toolkit. The series was designed to provide a comprehensive set of reference materials to help PHC providers, family medicine trainers, and health care managers and supervisors strengthen PHC service delivery. While each tool or toolkit can be used separately, PHRplus experience in Albania has demonstrated that activities aimed at strengthening PHC are strongly inter-connected and may need to be implemented in a comprehensive and coordinated fashion. Implementation often requires shifts in cultural paradigms for providers, so results may be best achieved by implementing processes in a step-by-step manner, with one tool (e.g. clinical practice guidelines) leading to development of another (training curricula on content and use of guidelines). PHRplus experience in Albania demonstrated that improvements in quality of care were possible despite lack of monetary incentives for the participating medical staff. However, central and regional health authorities should be encouraged to more actively monitor quality of care and implement management and finance reforms that provide incentives for providers to continuously improve quality so initial provider enthusiasm is not lost.

The first toolkit in this series is aimed at developing an appropriate list of PHC services for Albania, developing clinical guidelines and standards for PHC providers for these services, and equipping providers with the knowledge and skills necessary to implement the guidelines and improve quality of care. PHRplus worked closely with British general practitioners affiliated with the NGO PRIME, family medicine faculty from Tirana Medical School, and nursing faculty from Vlore University to develop this toolkit. This toolkit ensures that pilot PHC facilities have the necessary inputs to improve quality – a defined scope of services, minimum standards of care and straightforward clinical practice guidelines, and necessary refresher training for PHC providers.
<table>
<thead>
<tr>
<th>Table Title</th>
<th>Description</th>
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<td>A sample list of services to be provided by a PHC facility in Albania</td>
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<tr>
<td>Sample PHC Physician Retraining Curriculum</td>
<td>A description of the content and format of PHC physician retraining</td>
</tr>
<tr>
<td>Sample PHC Nurse Retraining Curriculum</td>
<td>A description of the content and format of PHC nurse retraining</td>
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<tr>
<td>Quick References</td>
<td>One-page quick reference sheets based on Albanian clinical practice guidelines on common conditions for use by PHC providers (clinical practice guidelines are available only in Albanian)</td>
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<td>Summary guidelines for common conditions describing when to refer to specialists or hospital for use by PHC providers</td>
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<td>Policy and procedure developed to govern the referral process from PHC providers to specialists or hospitals (agreed on by PHC providers and specialists)</td>
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The PHRplus Project also provided technical assistance to PHC managers and practitioners to develop and implement facility-based quality improvement systems and regional-level quality assurance processes. A second toolkit in the series helps to establish sustainable processes at PHC facilities that are needed to improve quality – quality committees, routine measurement of quality improvement using chart audit, patient satisfaction surveys, and monthly reports and meetings to review findings. The PHC QI system resulted in patients noticing differences in quality of care and providers feeling more empowered to create systems to improve quality themselves.

<table>
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<tbody>
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</tr>
<tr>
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<td>Terms of reference for regional or central QI committee including purpose, objectives, members, and meeting schedule</td>
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<tr>
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<tr>
<td>Medical Charts</td>
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<tr>
<td>Patient Satisfaction Survey</td>
<td>A sample patient satisfaction survey for PHC patients and clients</td>
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</table>
The PHC HIS is a simple Access database with user-friendly interfaces. The system is based on an encounter form completed by a primary care provider for each patient visit and produces easy-to-read monthly reports. The encounter form collects information on patient characteristics, provider, visit characteristics, diagnosis, and disposition (referrals, prescriptions, lab tests). The system has been designed to be easy to use with simple encounter forms, user-friendly data entry, unsophisticated data transfer and consolidation, and simplified routine reporting. The result is a simple, well-designed PHC HIS that is rapidly being expanded in Albania and may have applications in other country settings.

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<tr>
<td>Introduction to the Albania PHC HIS</td>
<td>A short introduction to the development history and structure of the PHC HIS in Albania</td>
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<td>System Orientation</td>
<td>A “walk-through” of the system to demonstrate its functions and uses using sample data and screen shots</td>
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<tr>
<td>Description of PHC HIS Infrastructure</td>
<td>A short description of the “nuts and bolts” of the system, with explanations of the technical specifications, system hierarchy, data entry, data transfer, data security, reporting, and system administration</td>
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<tr>
<td>Sample Calculation of System Requirements</td>
<td>Rough calculations based on population that may allow health authorities and managers to project potential costs of implementing the PHC HIS in their region</td>
</tr>
<tr>
<td>Encounter Form and List of Procedure Codes</td>
<td>The form used by PHC providers to record each patient encounter for entry into the system</td>
</tr>
<tr>
<td>Procedures for Completing the Encounter Form</td>
<td>A simple explanation for PHC providers to guide them through completing the encounter form, including reference material on coding</td>
</tr>
<tr>
<td>Procedure for Data Entry</td>
<td>A simple explanation for data entry personnel on creating “batches” of entries, entering encounter form data in batches into the system using a numeric keypad, and double entry procedures to ensure accuracy</td>
</tr>
<tr>
<td>Sample Reports</td>
<td>A routine set of monthly reports that can be automatically generated by the system</td>
</tr>
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2. PHC Service Delivery Toolkit

The first toolkit in this series is aimed at developing an appropriate list of PHC services for Albania, developing clinical guidelines and standards for PHC providers for these services, and equipping providers with the knowledge and skills necessary to implement the guidelines and improve quality of care. PHRplus worked closely with British general practitioners affiliated with the NGO PRIME, family medicine faculty from Tirana Medical School, and nursing faculty from Vlore University to develop this toolkit. This toolkit ensures that pilot PHC facilities have the necessary inputs to improve quality – a defined scope of services, minimum standards of care and straightforward clinical practice guidelines, and necessary refresher training for PHC providers.

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Sample List of PHC Services

Clinical Services

Adult Care

**Basic Diagnosis and Treatment of Illnesses and Diseases**

This category covers the most common illnesses and diseases of adults accessing services at the primary health care (PHC) level. Clinical Practice Guidelines (CPGs) (and accompanying Quick Reference Tools) have been developed for the disease categories listed below. They were chosen because of the relative frequency with which they are seen at the PHC level.

- Hypertension
- Chest pain
- Angina/Ischemic heart disease
- Heart failure
- Diabetes
- Urinary tract infections
- Anemia
- Asthma/COPD
- Acute low back pain
- Depression
- Fatigue
- Adult respiratory infection
Pediatric Care

**Basic Diagnosis and Treatment of Illnesses and Diseases**

This category covers the most common illnesses and diseases of adults accessing services at the primary health care level. Clinical Practice Guidelines (and accompanying Quick Reference Tools) have been developed for the disease categories listed below. They were chosen because of the relative frequency with which they are seen at the PHC level.

- Acute tonsillitis
- Bronchiolitis
- Lower respiratory tract infections
- Otitis media
- Diarrhea
- Febrile convulsions
- Temperature management

**Well Child Care**

A clinical practice guideline and quick reference has been developed for:

- Childhood Growth and Development Monitoring

**Women’s Health and Reproductive Health Care**

For women’s health and reproductive health, PHRplus has developed CPGs for:

- Antenatal Care
- Labor & Intrapartum
- Postnatal Care
- Clinical diagnosis and treatment of common problems during pregnancy and delivery
- Normal pregnancy
- Normal delivery (only applies to the Lapardha Center)
- Family planning

Trainings in female anatomy, sexually transmitted diseases, family planning, prevention screenings (breast exams, Pap Smears), were done for midwives at the pilot centers in conjunction with the Community Campaign. Additionally, training was done in cooperation with the JSI SEATS program in the areas of family planning, sexually transmitted diseases, and breast feed and prenatal care. Midwives work with protocols developed by JSI.
Emergency Care

As part of the Continuing Medical Education program PHRplus provided comprehensive materials and training in:

- Initial management and stabilization of emergency problems

Mini-Laboratory Services

The minimal services available at the PHC level include:

- Urine dipstick
- Whole blood glucose testing
Sample PHC Physician Retraining Curriculum

Introduction

Postgraduate training in Family Medicine has only recently been introduced into Albania and the vast majority of Doctors working in Primary Care had no specific training in this specialty. Opportunities for the continuing education for GP’s have been extremely limited. Much work needs to be done in this area and this program has been designed as the pilot study of the first phase of a retraining schedule suitable for use across the country.

Aims of the Program

The goal is to improve the quality of care by improving the services already in existence and introducing new ones.

The ultimate aim is to impart the necessary knowledge, skills, attitudes and professional values to practice appropriate medicine within the community in accordance with the ‘Service Development Module’ document (attached) using the suggested clinical practice guidelines (CPGs).

The course will provide a firm platform from which to further develop the practice of Family Medicine and the habit of Life Long Learning.

Principles

This curriculum is devised to comply with modern education theory, – the principals of which are, -

1. To establish an effective learning climate, where learners feel safe and comfortable expressing themselves.
2. To involve learners in mutual planning of relevant methods and curricular content.
3. To involve learners in diagnosing their own needs – this will help to trigger internal motivation.
4. To encourage learners to formulate their own learning objectives, – this gives them more control of their learning.
5. To encourage learners to identify resources and devise strategies for using the resources to achieve their objectives.
6. To support learners in carrying out their learning plans.
7. To involve learners in evaluating their own learning, – this can develop their skills of critical reflection.

BMJ 2003 326 213
Structure and Curriculum of Training Programme

The program consists of 150 hours training in Berat and four full weeks in Tirana in a university attachment.

Each six hour training day in Berat was divided into three two hour sessions, 9-11, 11.30-1.30 and 2.30-4.30 with a coffee break and a simple lunch provided. Some of these sessions were concerned with the principles and practice of Primary Care and others were programmed and structured around the presentation of a CPG and the discussion of this by the participants and, where appropriate, by local specialists or other PHCT members. The goal was to be responsive to the participants’ requirements and suggestions.

Typically this consisted of:

- an introductory lecture and presentation of the subject (one hour)
- workshop and practice work – group work, role playing, working with models, working with patients etc., – (two hours).
- Questions, discussions and summary of the day and evaluation of the session, (one hour).

Subjects for CPGs were selected by a process of consultation, taking into account local and national priorities. They were prepared by taking into account experience in other countries and local human and material resources. These are being modified as a result of the experience gained within the pilot study.

A member of the training consultancy team was responsible for each session. At least one week prior to the presentation, each presenter submitted a detailed plan of the program (see attached proforma) and necessary written materials to enable other participants to be invited and the main participants to prepare themselves for the session.

The program was aimed to give maximum potential for the availability of local resources. Local specialists and appropriate members of the Primary Health Care Team were encouraged to attend certain parts of the program.

During the shorter, unstructured part of the day, participants brought up actual clinical cases and problems. Role play was used during the training, and during the course of the program, each participant made at least one short presentation of a relevant and problem orientated subject, selected by mutual agreement. Opportunity was taken in this time for a review of practical skills or any matters arising from the previous week’s course. The session also included a written evaluation by participants at its conclusion.

At least one week before each training day, participants were given any necessary paper work to prepare themselves for the session. They also received any necessary upgrades to previous modules.

Participants also sought out learning experiences in their everyday work, and brought cases to the group for presentation or discussion.

Some one-to-one observation of participants in their consultations was carried out in order to help them identify areas to be strengthened.
Participants were given a log-diary in which to record attendance at the course, topics covered and skills acquired. A section of the log provided space to record learning needs encountered and measures taken to fill that need.

The training in Tirana consisted of two groups of eight, one for four weeks in June and one for four weeks in September. It was based on a rotation system with two subgroups of four doctors each. The structure of this period was as follows, –

- Two weeks in Internal Medicine, one week each in Paediatrics and Obstetrics & Gynaecology.
- Four tutorial sessions per week, two hours each, Monday to Thursday, 12.0-2.0.
- Two lectures per week, one hour each for two groups together (eight doctors) on Fridays, 9.0-10.0 and 10.15-11.15.
- One workshop per week, (all doctors together) on Fridays with a summary of the week, 11.30-1.00.
- One Round Table per week (medicine and society) two groups together, eight doctors, 1.15-2.45.

Assessment of programme

There are three key components to the retraining: knowledge, skills and attitudes.

- Increase in knowledge will be assessed both informally during the training period and in a more quantitative manner by the use of multiple choice questionnaires (MCQs). An anonymised but numbered MCQ will be undertaken by all participants during the first four weeks. This will be provided by experts from the Department of Family Medicine in Tirana (with help from UK associates if necessary). The MCQ will be repeated at the end of the course and both overall and individual progress of participants will be assessed.

- Skills improvement will be assessed during the one-to-one observation period and during hospital attachments as well as during the unstructured part of the Friday sessions.

- Attitudes will be assessed in the same way with additional material coming from the comments on the weeks assessment sheets and on final course assessment by participants.

Future development/ongoing training

This curriculum covers those conditions identified in the initial consultation by PHRplus although there are certain major areas and important topics in primary care which are not specifically covered. Whilst some of these may be dealt with during the two hour, chiefly unstructured sessions and in the Tirana attachment, it is recommended that an ongoing program of continuing medical education is needed subsequent to the course. This could take the form of a one day per month programme in Berat and/or attachments at Tirana University Hospital.

The following subjects should be included in this.

- HIV
- TB
- Dermatology, including skin cancer
- Ophthalmology, especially the management of red eye.
- Dementia
- Cerebro-vascular accidents
- Nutrition and the treatment and prevention of obesity
- Thyroid disease
- Hepatitis
- Joint problems, arthritis
- Terminal care
- Menopause
- Minor surgery lacerations, minor trauma and management of soft tissue infections
- Headache, facial pain
- Drug abuse, smoking and alcohol
Proforma for Preparatory Material

Aim(s)

Objective(s)

Synopsis of lecture/presentation

Suggested preparation

*Eg. Reading material if available, selected case studies, review of health centre statistics etc.*

Material to be precirculated

*Eg. CPG, Case studies*

List of material to be brought to the Presentation
## Training in Berat

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Topic for the Session</th>
<th>Other Participants and Contributors</th>
<th>Number of Doctors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Jan 28</td>
<td>Change management and the overview of family medicine including the interfacing of primary and secondary care, Part One</td>
<td>All GPs, heads of departments and specialists</td>
<td>29</td>
</tr>
<tr>
<td>Session 2</td>
<td>Jan 29</td>
<td>Change management and the overview of family medicine including the interfacing of primary and secondary care, Part Two</td>
<td>All GPs, heads of departments and specialists</td>
<td>29</td>
</tr>
<tr>
<td>Session 3</td>
<td>Feb 21</td>
<td>Family medicine: the definition and philosophy, core competences as per the new European definition. Introduction to clinical practice guidelines and the training course</td>
<td>Course participants and specialists</td>
<td>18</td>
</tr>
<tr>
<td>Session 4</td>
<td>Feb 28</td>
<td>Primary care: the diagnostic process and the principles of the management of the patient in</td>
<td>Course participants</td>
<td>17</td>
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<tr>
<td>Session 5</td>
<td>March 7</td>
<td>Anticipatory care: primary, secondary and tertiary prevention, health promotion</td>
<td>Course participants and members of the primary health care (PHC) team</td>
<td>17</td>
</tr>
<tr>
<td>Session 6</td>
<td>March 14</td>
<td>Chest pain: the diagnostic process and principles of the management as described in models in Session 4</td>
<td>Course participants, cardiologists and other interested specialists</td>
<td>18</td>
</tr>
<tr>
<td>Session 7</td>
<td>March 21</td>
<td>Family planning and sexual health</td>
<td>Course participants, midwives and nurses</td>
<td>17</td>
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<tr>
<td>Session 8</td>
<td>March 28</td>
<td>Communication skills in primary care</td>
<td>All GPs, heads of departments and specialists</td>
<td>17</td>
</tr>
<tr>
<td>Session 9</td>
<td>March 28</td>
<td>Clinical skills in primary care</td>
<td>All GPs, heads of departments and specialists</td>
<td>17</td>
</tr>
<tr>
<td>Session 10</td>
<td>May 23</td>
<td>Growth development and monitoring of the children, how to do it, the factors that influence normal growth and development, how to involve the parents, the family and the community</td>
<td>Course participants and nurses</td>
<td>16</td>
</tr>
<tr>
<td>Session 11</td>
<td>April 11</td>
<td>Respiratory infections in children and adults the diagnostic process and management using the model of the Session 4, prevention as described in Session 5</td>
<td>Course participants, Paediatricians and Pulmonologists</td>
<td>17</td>
</tr>
<tr>
<td>Session 12</td>
<td>April 18</td>
<td>Low back pain: what does it mean for the patient. How it affects his everyday activity, using the holistic model of Session 4, prevention as described in Session 5</td>
<td>Course participants, Neurologists and Rheumatologists. Physiotherapists</td>
<td>14</td>
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<tr>
<td>Session 13</td>
<td>April 25</td>
<td>Fever during infancy and childhood: the diagnostic process and management using the model of Session 4, prevention as described in Session 5. Febrile seizures and their management</td>
<td>Course participants and Paediatricians and nurses</td>
<td>17</td>
</tr>
<tr>
<td>Session 14</td>
<td>May 16</td>
<td>Obstetric care in general practice, Part One: hygiene during pregnancy, nutrition during pregnancy, involvement of women, the family and the community</td>
<td>Course participants, midwives and Obstetricians</td>
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</tr>
<tr>
<td>Session 15</td>
<td>May 16</td>
<td>Obstetric care in general practice, Part Two: Haemorrhages of the first and third semester, management of the pregnant woman considering all the elements as described in Session 4. Postpartum care, normal puerperium care, puerperal sepsis, postpartum hemorrhages</td>
<td>Course participants Obstetricians and midwives</td>
<td>13</td>
</tr>
<tr>
<td>Session 16</td>
<td>April 25</td>
<td>Diarrhea: the diagnostic process and management using the model of the Session 4, prevention as described in Session 5. Rectal bleeding</td>
<td>Course participants. Paediatricians, Gastroenterologists and other interested specialists</td>
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</tr>
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<td>Session</td>
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<tr>
<td>Session 18</td>
<td>May 29</td>
<td>Principles of chronic disease management, including screening and patient education for improved health in the community, Part One</td>
<td>All GPs, heads of departments and specialists and suitable members of the PHC team</td>
<td>16</td>
</tr>
<tr>
<td>Session 19</td>
<td>May 30</td>
<td>Principles of chronic disease management, including screening and patient education for improved health in the community, Part Two. Including Audit</td>
<td>All GPs, heads of departments and specialists and suitable members of the PHC team</td>
<td>16</td>
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<td>Session 20</td>
<td>June 6</td>
<td>Diabetes: the diagnostic process and management using the principles of Sessions 18, 19, the model of the Session 4, prevention as described in Session 5</td>
<td>Course participants, Endocrinologists and suitable members of the PHC team</td>
<td>17</td>
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<td>Session 21</td>
<td>June 20</td>
<td>Asthma: the diagnostic process and management using the principles of Sessions 18, 19, the model of Session 4, prevention as described at Session 5</td>
<td>Course participants, Allergologists Pneumologists and suitable members of the PHC team</td>
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<tr>
<td>Session 22</td>
<td>June 6</td>
<td>Hypertension: the diagnostic process and management using the principles of Sessions 18, 19, the model of Session 4, prevention as described in Session 5</td>
<td>Course participants, Cardiologists, Nephrologists and suitable members of the PHC team</td>
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<td>Session 23</td>
<td>June 13</td>
<td>Abdominal pain: including epigastric pain and dyspepsia</td>
<td>Course participants, surgeons and Gastroenterologists</td>
<td>16</td>
</tr>
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<td>July and Sept</td>
<td></td>
<td>Rotational training in Tirana and one-to-one teaching in PHC centres</td>
<td>Separate Programme</td>
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<tr>
<td>Session 24</td>
<td>Sept 26</td>
<td>Integration of the principles of family medicine to include mental health and the promotion of well being for the patient and the community. Part One.</td>
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<tr>
<td>Session 25</td>
<td>Sept 27</td>
<td>Integration of the principles of family medicine to include mental health and the promotion of well being for the patient and the community. Part Two.</td>
<td>All GPs, heads of departments and specialists</td>
<td>16</td>
</tr>
</tbody>
</table>
Structure and Curriculum of Training Programme

The program consists of 150 hours training in Berat and four full weeks in Tirana in a university attachment.

Each six hour training day in Berat was divided into three two hour sessions, 9-11, 11.30-1.30 and 2.30-4.30 with a coffee break and a simple lunch provided. Some of these sessions were concerned with the principles and practice of Primary Care and others were programmed and structured around the presentation of a CPG and the discussion of this by the participants and, where appropriate, by local specialists or other PHCT members. The goal was to be responsive to the participants’ requirements and suggestions.

Typically this consisted of:

△ an introductory lecture and presentation of the subject (one hour)
△ workshop and practice work – group work, role playing, working with models, working with patients etc, – (two hours).
△ Questions, discussions and summary of the day and evaluation of the session, (one hour).

Subjects for CPGs were selected by a process of consultation, taking into account local and national priorities. They were prepared by taking into account experience in other countries and local human and material resources. These are being modified as a result of the experience gained within the pilot study.

A member of the training consultancy team was responsible for each session. At least one week prior to the presentation, each presenter submitted a detailed plan of the program (see attached proforma) and necessary written materials to enable other participants to be invited and the main participants to prepare themselves for the session.

The program was aimed to give maximum potential for the availability of local resources. Local specialists and appropriate members of the Primary Health Care Team were encouraged to attend certain parts of the program.

During the shorter, unstructured part of the day, participants brought up actual clinical cases and problems. Role play was used during the training, and during the course of the program, each participant made at least one short presentation of a relevant and problem orientated subject, selected by mutual agreement. Opportunity was taken in this time for a review of practical skills or any matters arising from the previous week’s course. The session also included a written evaluation by participants at its conclusion.

At least one week before each training day, participants were given any necessary paper work to prepare themselves for the session. They also received any necessary upgrades to previous modules.

Participants also sought out learning experiences in their everyday work, and brought cases to the group for presentation or discussion.

Some one-to-one observation of participants in their consultations was carried out in order to help them identify areas to be strengthened.
## Training in Tirana

### Obstetrics & gynecology

<table>
<thead>
<tr>
<th>Topic</th>
<th>Type</th>
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<tbody>
<tr>
<td>Antenatal care</td>
<td>tutorial</td>
</tr>
<tr>
<td>Normal vaginal delivery</td>
<td>tutorial</td>
</tr>
<tr>
<td>The dystocias</td>
<td>tutorial</td>
</tr>
<tr>
<td>Vaginal examination, Insertion of Speculum, taking an HVS and a cervical smear.</td>
<td>tutorial</td>
</tr>
<tr>
<td>Abnormal vaginal bleeding</td>
<td>lecture</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>lecture</td>
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### Pediatrics

<table>
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<tbody>
<tr>
<td>Pediatric examination..</td>
<td>tutorial</td>
</tr>
<tr>
<td>Acute respiratory infections in children. Observation of Vital signs.</td>
<td>tutorial</td>
</tr>
<tr>
<td>ENT examination, Otitis media, use of the otoscope</td>
<td>tutorial</td>
</tr>
<tr>
<td>According to the participants wish</td>
<td>tutorial</td>
</tr>
<tr>
<td>Management of ARI</td>
<td>lecture</td>
</tr>
<tr>
<td>Management of diarrhoea Use of Oral Rehydration</td>
<td>lecture</td>
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</table>

### Internal medicine

<table>
<thead>
<tr>
<th>Topic</th>
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<tbody>
<tr>
<td>Anemia</td>
<td>tutorial</td>
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<tr>
<td>Ischemic heart disease</td>
<td>tutorial</td>
</tr>
<tr>
<td>Heart failure</td>
<td>tutorial</td>
</tr>
<tr>
<td>Urinary tract infections</td>
<td>tutorial</td>
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<tr>
<td>Geriatrics</td>
<td>tutorial</td>
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<tr>
<td>Geriatrics</td>
<td>tutorial</td>
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<tr>
<td>According to the participants wish</td>
<td>tutorial</td>
</tr>
<tr>
<td>According to the participants wish</td>
<td>tutorial</td>
</tr>
<tr>
<td>Anemic disorders</td>
<td>lecture</td>
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<tr>
<td>Emergency situations.</td>
<td>lecture</td>
</tr>
<tr>
<td>According to the participants wish</td>
<td>lecture</td>
</tr>
<tr>
<td>According to the participants wish</td>
<td>lecture</td>
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### Round tables

<table>
<thead>
<tr>
<th>Topic</th>
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<tbody>
<tr>
<td>Invited speakers from the Health Insurance Institute</td>
</tr>
<tr>
<td>Invited speakers from the Ministry of Health</td>
</tr>
<tr>
<td>Invited speakers from the Chamber of Doctors</td>
</tr>
<tr>
<td>According to the participants wish</td>
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</tbody>
</table>
# Sample PHC Nurse Retraining Curriculum

<table>
<thead>
<tr>
<th>Date</th>
<th>Sessions topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>23 May Effects of the environment on community health. The role of the nurse in protection of community health</td>
</tr>
<tr>
<td>Session 2</td>
<td>30 May Management of patients with respiratory problems</td>
</tr>
<tr>
<td>Session 3</td>
<td>6 June Child monitoring and development. Teenagers</td>
</tr>
<tr>
<td>Session 4</td>
<td>13 June Water and health in community. Monitoring contamination, transmission of water-borne illness. Health staff responsibilities for the security of clean water</td>
</tr>
<tr>
<td>Session 5</td>
<td>20 June Vital signs. Injections Referral protocols.</td>
</tr>
<tr>
<td>Session 6</td>
<td>27 June Cardiovascular problems. Cardiovascular specialists and hematologists</td>
</tr>
<tr>
<td>Session 7</td>
<td>4 July Water-borne diseases (hepatitis, abdominal typhus, cholera, dysentery)</td>
</tr>
<tr>
<td>Session 8</td>
<td>11 July Metabolic and endocrinological problems</td>
</tr>
<tr>
<td>Session 9</td>
<td>18 July The law for the organization of public health services</td>
</tr>
<tr>
<td></td>
<td>Health organizations and institutions in the Republic of Albania, their public health duties</td>
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<tr>
<td>Session 10</td>
<td>25 July Digestive and gastrointestinal problems</td>
</tr>
<tr>
<td>Session 11</td>
<td>1 August Emergency management. Anaphylactic shock. Cardiopulmonary intensive care. Wound care</td>
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<tr>
<td></td>
<td>Cardio-pulmonary intensive care</td>
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<tr>
<td>Session 12</td>
<td>5 September Sexual transmitted diseases (hepatitis and SIDA)</td>
</tr>
<tr>
<td>Session 13</td>
<td>12 September Renal and urinary tract problems</td>
</tr>
<tr>
<td>Session 14</td>
<td>19 September Stress and pain management</td>
</tr>
<tr>
<td>Session 15</td>
<td>26 September Dealing with dying patients, patients with cancer</td>
</tr>
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Partners for Health Reformplus
<table>
<thead>
<tr>
<th>Date</th>
<th>Sessions topics</th>
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<tbody>
<tr>
<td>Session 16</td>
<td>Airborne diseases and infection from streptococcus (Meningitis, encephalitis, etc)</td>
</tr>
<tr>
<td>3 October</td>
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<tr>
<td>Session 17</td>
<td>Nursing care of adults and elders</td>
</tr>
<tr>
<td>10 October</td>
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<tr>
<td>Session 18</td>
<td>Immunology problems (immunity system, immune-pathology and immune-deficiency, allergic problems and reumatology)</td>
</tr>
<tr>
<td>17 October</td>
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<tr>
<td>Session 19</td>
<td>Zoonotic diseases (brucellosis, anthrax)</td>
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<tr>
<td>24 October</td>
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<tr>
<td>Session 20</td>
<td>Principles and requests in patient management. Rehabilitation principles and practices. Health Center Management Nurse communication skills</td>
</tr>
<tr>
<td>31 October</td>
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<tr>
<td>Session 21</td>
<td>Neuro-sensorial problems (eye and ear disorders, neurologic disorders), patient management</td>
</tr>
<tr>
<td>5 November</td>
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CLINICAL PRACTICE GUIDELINES FOR FAMILY DOCTORS

Quick References
<table>
<thead>
<tr>
<th>HEALTH CARE FOR ADULTS</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Chest Pain</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Angina</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Asthma and COPD</td>
<td>Dr. Geoff Pye</td>
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<tr>
<td>Acute Low Back Pain</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Anemia</td>
<td>Dr. Geoff Pye</td>
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<tr>
<td>Acute respiratory Tract Infections in Adults</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Urinary Tract Infections</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Depression</td>
<td>Dr. Geoff Pye</td>
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</tbody>
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<table>
<thead>
<tr>
<th>HEALTH CARE FOR CHILDREN</th>
<th>AUTHORS</th>
</tr>
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<tbody>
<tr>
<td>Temperature Management</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Febrile convulsions</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Acute Tonsillitis</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Acute Otitis Media</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Bronchiolitis</td>
<td>Dr. Geoff Pye</td>
</tr>
<tr>
<td>Lower Respiratory Tract Infections</td>
<td>Dr. Geoff Pye</td>
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<tr>
<td>Growth and Development</td>
<td>Dr. Geoff Pye</td>
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<table>
<thead>
<tr>
<th>OB-GYN HEALTH CARE</th>
<th>AUTHORS</th>
</tr>
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<tbody>
<tr>
<td>Normal Antenatal Care</td>
<td>Dr. Maksim Jani</td>
</tr>
<tr>
<td>Normal Puerperal Care</td>
<td>Dr. Maksim Jani</td>
</tr>
<tr>
<td>Management of Complications</td>
<td>Dr. Maksim Jani</td>
</tr>
</tbody>
</table>
**Hypertension**

### Risk Factors:
1. Diabetes
2. Raised lipids
3. Smoking
4. Age > 60 years
5. Family history of cardiovascular disease
6. Sex: Men and postmenopausal women

### Lifestyle Modifications:
(As effective as monotherapy)
1. Stop smoking
2. Diet: Reduce weight to 14 IU \ week
3. Reduce alcohol
4. Increase activity: 30 mins aerobic exercise X 3 \ week

### Initial Screenings:
1. CBC
2. Electrolytes
3. Creatinine
4. Lipids
5. Urinalysis
6. EKG
7. CXR

### If on diuretic or ACE inhibitor (6 monthly):
1. CBC
2. Creatinine
3. Electrolytes

---

**Hypertension Stage**

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Risk Factors</td>
<td>No Target Organ Damage</td>
<td>No Target Organ Damage</td>
<td>Diabetes ± Other Risk Factors ± Target Organ Damage</td>
</tr>
<tr>
<td>Stage 1: 140–159 \ 90–99</td>
<td>1 Year Lifestyle Modifications</td>
<td>6 Months Lifestyle Modifications</td>
<td>1. ACE Inhibitor ± 2. Diuretic</td>
</tr>
<tr>
<td>Stages 2 and 3: &gt;160 \ &gt;100</td>
<td>1. Diuretic ± 2. ß-Blocker</td>
<td>1. Diuretic ± 2. ACE Inhibitor (or ß – Blocker) ± 3. CA Channel Antagonist</td>
<td>1. ACE Inhibitor ± 2. Diuretic</td>
</tr>
<tr>
<td>Target BP</td>
<td>140 \ 90</td>
<td>140 \ 90</td>
<td>&gt;65 Years</td>
</tr>
<tr>
<td>140–160 \ 65–70</td>
<td>130 \ 80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Not at Target BP
- No response or side effects
- Substitute another drug from a different class
- Refer

### Inadequate Response
- Not at Target BP
- Add another drug from a different class especially diuretic
- Refer

---

**Secondary Hypertension**

- Patients under 35 years
- BP not controlled on 2 or 3 drugs
- Increasing proteinuria
- Renal impairment (creatinina > 180)
- Malignant hypertension

---

**Causes of Secondary Hypertension**

1. Renal parenchymal disease
2. Renovascular disease
3. Primary aldosteronism
4. Cushing's syndrome
5. Phaeochromocytoma
6. Coarctation

---

**Target Organ Damage**

1. Heart:
   - LV hypertrophy
   - Angina
   - Previous MI
   - CABG
   - Heart failure
2. Stroke or TIA
3. Peripheral arterial disease
4. Retinopathy

**Drug Combinations to Avoid**
1. ß-blocker + Verapamil or Diltiazem
2. ACE inhibitor + Angiotensin II antagonist
3. K⁺ sparing diuretic + ACE inhibitor

---

October 2003
ANGINA

STAGE 1
INFREQUENT ATTACKS WITH PRECIPITATING FACTORS

STAGE 2
MORE FREQUENT ANGINA LIMITING ACTIVITIES

STAGE 3
SYMPTOMS STILL NOT CONTROLLED

STAGE 4
STILL SYMPTOMATIC DESPITE TREATMENT

STAGE 5
SYMPTOMS NOT CONTROLLED

TESTS:
URINANALYSIS
BLOOD SUGAR IF POSITIVE GLUC.
EKG
CKR
CBC
LIPIDS
TFT's
RFT's IF INDICATED
LFT's

RISK FACTORS:
1. PREVIOUS MI
2. COMORBIDITY eg: DIABETES
3. ALCOHOLISM
4. UNCONTROLLED HT
5. A/F, VALVE DISEASE, LV DYSFUNCTION, ANTICOAG.
6. UNDER 50's FOR CORONARY ANGIOGRAM
7. UNDER 60's FOR EXERCISE TEST
8. EXTENSIVE VASCULAR DISEASE, STROKE, TIA, ANAEMIA, COPD
9. FAMILY HISTORY CHD/SUDDEN DEATH
   MALES < 50, FEMALES < 55
HEART FAILURE

(Cardiac Output Inadequate to meet Body’s Needs)

### Causes:

1. Hypertension
2. Valvular Heart Disease
3. Coronary Artery Disease
4. Myocardial Disease:
   a. Myocardial Infarct
   b. Toxins, Alcohol, Cytotoxic Drugs
   c. Viral Myocarditis
   d. Hemochromatosis
   e. Amyloidosis
   f. Lipid Storage Disorder
   g. Idiopathic Hypertrophic Cardiomyopathy
   h. Congenital Lesions
5. High Cardiac Output States:
   a. Anaemia
   b. Thyrotoxicosis
   c. Pregnancy
   d. Liver Disease
   e. Beri – Beri
   f. A – V Fistula

### STAGE

#### A. HIGH RISK OF HEART FAILURE (NO SYMPTOMS OF FAILURE)

- **Example:**
  - Previous MI
  - Hypertension
  - Hyperlipidemi

**TREATMENT**

- ACE Inhibitors
- LIFESTYLE MODIFICATIONS: Diet, Smoking, Alcohol, Exercise (Moderate)
- INFLUENZA Vaccines
- PNEUMOCOCCUS Vaccines

**TESTS**

- EKG
- CXR
- ECHO
- Regular CBC
- Electrolytes

#### B. STRUCTURAL HEART DISEASE (NO SYMPTOMS OF FAILURE)

- **? Signs – ↑ JVP**
- Pulmonary Rales
- Peripheral Oedema

**TREATMENT**

- ACE Inhibitors
- RFT’s
- ? β - Blockers → Cardiology Opinion

**TESTS**

- Cardiology Opinion
- (Good in IHD)

#### C. STRUCTURAL HEART DISEASE PLUS SYMPTOMS OF FAILURE

- **a. Dyspnoea, Orthopnoea, Paroxysmal Nocturnal Dyspnoea, Oedema.**
- **b. Persistent volume overload**
- **c. Persistent Dyspnoea** (Particularly in HT, Mitral Regurgitation)

**TREATMENT**

- ACE Inhibitors
- THIAZIDE
- Diuretics
- DIGOXIN
- Loop or K+ Sparing
- Diuretics or Combine
- Vasodilator:
- ISDN, HYDRAZINE

**TESTS**

- TFT’s
- Regular CBC
- RFT’s
- Electrolytes
- (1 Month after starting Therapy, 6-Monthly when stabilized)

#### D. REFRACTORY HEART FAILURE

Requiring Specialist Interventions

- Arrhythmias
- Thrombo – Embolic Events
- Acute Decompensation
- Drug Toxicity
- I.V. Therapy
- Anticoagulation
- CABG
- Heart Transplant

**REFER**

- CARDIOLOGIST
DIABETES MELLITUS

1. APPROPRIATE FREQUENCY OF SELF–MONITORED BLOOD GLUCOSE MEASUREMENT
2. APPROPRIATE DIET
3. RECOGNITION, PREVENTION AND TREATMENT OF HYPOGLYCAEMIC SYMPTOMS
4. CONTINUOUS EDUCATION
5. 6 MONTHLY ASSESSMENT

PHYSIOLOGICALLY–BASED INSULIN

1. METFORMIN FOR OBESE
2. GLIPIZIDE OR GUBENCLAMIDE FOR NON–OBESE
3. TOLBUTAMIDE FOR > 70 YEARS
4. ADD METFORMIN TO GLIPIZIDE OR GUBENCLAMIDE FOR NON–OBESE
5. LIPID LOWERING DRUGS

TREATMENT GOALS:

SELF MONITORED BLOOD GLUCOSE 80 – 120 BEFORE MEALS
100 – 140 AT BEDTIME
180 2 HOURS AFTER MEAL

HbA1c < 6.5 if HEALTHY
< 8.0 if CARDIOVASCULAR DISEASE EVENT
< 9.0 if < 5 YEARS PREDICTED SURVIVAL

SECONDARY CAUSES – METABOLIC SYNDROME

1. HYPERTENSION
2. CENTRAL (UPPER BODY) OBESITY
3. RAISED LIPIDS
4. HIGH RISK OF VASCULAR DISEASE
5. EXOCRINE PANCREAS DISEASES: PANCREATITIS, PANCREATECTOMY, NEOPLASIA, CYSTIC FIBROSIS, HAEMOCHROMATOSIS
6. ENDOCRINOLOGY: CUSHING'S SYNDROME; ACROMEGALY, PHAEOCHROMOCYTOMA, GLUCAGONOMA, Hyperthyroidism
7. DRUGS: STEROIDS, THYROID, THIAMINE, DIABETES, 

RISK FACTORS:

1. CENTRAL OBESITY
2. FAMILY HISTORY
3. GESTATIONAL DIABETES OR DELIVERY LARGE BABY > 4 kg
4. ETHNIC GROUPS: LATIN, BLACK, AMERICAN INDIAN, PACIFIC ISLANDER
5. AGE OVER 60 YEARS

LONG–TERM COMPLICATIONS:

1. RETINOPATHY – BLINDNESS – CHECK YEARLY
2. NEPHROPATHY – RENAL FAILURE (CREAT >130)
3. NEUROPATHY – FOOT ULCERS → INFECTION → AMPUTATION
4. AUTONOMIC DYSFUNCTION
5. HIGH RISK CARDIOVASCULAR, PERIPHERAL VASCULAR AND CEREBROVASCULAR DISEASE.

REVIVAL:

1. SEE 6 MONTHLY:
   - URINE PROTEIN
   - HbA1c
   - LIPIDS
   - CREATININE
2. ANNUALLY FULL EXAM:
   - FUNDOSCOPY
   - BP
   - SKIN
   - PERIPHERAL NERVES
   - WEIGHT

REFERRAL:

1. CHILDREN – SAME DAY
2. NEWLY DIAGNOSED DIABETICS – ESPECIALLY INSULIN – DEPENDENT
3. DIABETIC NOW PREGNANT
4. GESTATIONAL DIABETIC
5. PROTRACTED VOMITING, KETONURIA
6. HYPERTENSION OR RAISED LIPIDS DIFFICULT TO CONTROL
7. TARGETS NOT MET
8. COMPLICATIONS

PRE–DIABETES = RISK FACTOR + GLUCOSE > 100

1. ASPIRIN 325 mg/day
2. HbA1c + 2 Hr POST GLUCOSE BLOOD SUGAR
3. TREAT RISK FACTORS
4. EDUCATION
5. ↓ WEIGHT
6. STOP SMOKING
7. ↓ EXERCISES

DIET:

1. ↑ COMPLEX C H2O TO 50 % DIET
   (BREAD, POTATOES, RICE, CEREALS)
2. ↓ FRIED OR FATTY FOOD, SKIMMED MILK
3. ↓ ALCOHOL
4. ↓ SALT
5. ↓ WEIGHT

RISK FACTORS:

1. CENTRAL OBESITY
2. FAMILY HISTORY
3. GESTATIONAL DIABETES OR DELIVERY LARGE BABY > 4 kg
4. ETHNIC GROUPS: LATIN, BLACK, AMERICAN INDIAN, PACIFIC ISLANDER
5. AGE OVER 60 YEARS

4 %

96 %

TYPE I

TYPE II

STEP CARE:

1. ORAL AGENT
2. ADD SECOND ORAL AGENT
3. ADD NOCTURNAL INSULIN
4. ↑ INSULIN AS NEEDED

ADULT OBESE
FAMILY HISTORY
INFREQUENT KETOACIDOSIS
HIGH RISK VASCULAR DISEASE

JUVENILE
AUTO–IMMUNE
IDIOPATHIC
NEED INSULIN
KETOACIDOSIS

1. METFORMIN FOR OBESE
2. GLIPIZIDE OR GUBENCLAMIDE FOR NON–OBESE
3. TOLBUTAMIDE FOR > 70 YEARS
4. ADD METFORMIN TO GLIPIZIDE FOR NON–OBESE
5. LIPID LOWERING DRUGS

REVIEW:

1. SEE 6 MONTHLY:
   - URINE PROTEIN
   - HbA1c
   - LIPIDS
   - CREATININE
2. ANNUALLY FULL EXAM:
   - FUNDOSCOPY
   - BP
   - SKIN
   - PERIPHERAL NERVES
   - WEIGHT

REFERRAL:

1. CHILDREN – SAME DAY
2. NEWLY DIAGNOSED DIABETICS – ESPECIALLY INSULIN – DEPENDENT
3. DIABETIC NOW PREGNANT
4. GESTATIONAL DIABETIC
5. PROTRACTED VOMITING, KETONURIA
6. HYPERTENSION OR RAISED LIPIDS DIFFICULT TO CONTROL
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3. TOLBUTAMIDE FOR > 70 YEARS
4. ADD METFORMIN TO GLIPIZIDE FOR NON–OBESE
5. LIPID LOWERING DRUGS

DIABETES MELLITUS

( = FASTING BLOOD GLUCOSE > 110 (6–1) AND OR 2 HOURS POST GLUCOSE LOAD > 180 (10–0) )
**EQUIPMENT NEEDED:**
- PEAK FLOW METER NEBULISER

**ASTHMA AND COPD (Chronic Obstructive Pulmonary Disease)**

**COUGH, WHEEZE, DYSPNOEA, EXERCISE, INTOLERANCE**

**FEV1, FVC, PFR**
- AIRWAY OBSTRUCTION
- 50%+ REVERSAL OF OBSTRUCTION
- BRONCHODILATATOR

**AT RISK PATIENT:**
1. PREVIOUS SEVERE ATTACK
2. AFRICAN AMERICAN
3. POOR FOLLOW-UP OR REVENTION FACILITIES
4. DEPRESSION OR PSYCHOSOCIAL BEHAVIOURAL PROBLEM
5. PREGNANCY
6. ELDERLY (ON NON-STEROIDAL ANTI-INFLAMMATORY OR ß-BLOCKER)

**REFER:**
- ASTHMA
- COPD

**CLASSIFICATION:**
- MILD:
  - FEV1 60 – 80%
  - MILD DYSPNOEA
  - SMOKER’S COUGH
  - IPRATROPIUM
- MODERATE:
  - DYSPNOEA + WHEEZE
  - OR MILD EXERTION
  - COUGH ± SPUTUM
  - ↓ BREATH SOUND, WHEEZE
- SEVERE:
  - FEV1 <80%, FEV1/FVC RATIO <70%
  - 3 MONTHS; YEAR FOR 2 YEARS:
  - CRONIC COUGH, WHEEZE, REGULAR SPUTUM, SMOKING, ENVIRONMENTAL EXPOSURE

**TREATMENT OF ACUTE EXACERBATION:**
- ↑ OBSTRUCTION ➔ ↑ BRONCHODILATATORS
- ↑ DYSPNOEA
- ↑ SPUTUM
- PURULENT SPUTUM

**CURRENTLY ON ORAL STEROIDS**
- NO RESPONSE TO BRONCHODILATATORS
- FIRST ATTACK OF OBSTRUCTION

**UNCONTROLLED ASTHMA IN ADULTS:**
- P<110, RESP<25, PF>50% PREDICTED OR BEST NEBULISER SALBUTAMOL, ASSES AFTER 30 MINS IF PF 50 – 75% GIVE 30 – 60 mg ORAL PREDNISOLONE

**ACUTE SEVERE ASTHMA IN ADULTS:**
- SPEECH DIFFICULT, P>110, RESP>25, PF<50%
  - O2 40 – 60% IF AVAILABLE, ORAL PREDNISOLONE 60 mg NEBULISED SALBUTAMOL, ASSES 30 MIN, IF NOT OK

**LIFE-THREATENING ASTHMA IN ADULTS:**
- SILENT CHEST, CYANOSIS, BRADYCARDIA, PF<33%
- ORAL PRREDNISOLONE 60mg, O2 NEBULISER WITH ß2 AGONIST + IPRATROPIUM

**October 2003**
ANAEMIA

BLOOD LOSS
- TRAUMA
- MENSES or OBSTETRIC

GASTRO-INTESTINAL
- UPPER:
  1. VARICES
  2. GORD
  3. PU
  4. CANCER
  5. DRUGS (NSAID'S)
- LOWER:
  1. HAEMORRHOIDS
  2. ULCERATIVE COLITIS
  3. CROHN's
  4. CHRONIC DIARRHOEA

DECREASED BLOOD PRODUCTION
- POOR ABSORPTION
  1. BOWEL SURGERY
  2. ULCERATIVE COLITIS
  3. CROHN's
  4. CHRONIC DIARRHOEA
- INADEQUATE INTAKE
  1. RESTRICTED DIET eg: VEGAN
  2. MALNUTRITION
- IRON DEFICIENCY:
  1. RESTRICTED DIET eg: VEGAN
  2. MALNUTRITION

POOR Absorption
- B12
- FOLATE
- 3. TAPE – WORM

POOR Absorption
- B12
- FOLATE
- 3. TAPE – WORM

INCREASED Utilisation
- CHRONIC DISEASE:
  1. RENAL FAILURE
  2. HYPOTHYROIDISM
  3. ADDISONS
  4. PAN HYPO – PITUITARISM
  5. HIV

INCREASED BLOOD DESTRUCTION
- HAEMOLYTIC ANAEMIAS:
  1. THALASSAEMIA
  2. SICKLE CELL
  3. HEREDITARY SPHEROCYTOSIS

HAEMOLYTIC ANAEMIAS:
- 1. THALASSAEMIA
- 2. SICKLE CELL
- 3. HEREDITARY SPHEROCYTOSIS

PREGNANCY
- ADOLESCENCE
- INFANCY

CLINICAL FEATURES
- SMOOTH, SHINY TONGUE, ANGULAR STOMATITIS

BLOOD PICTURE
- MCV, LOW FERRITIN, HIGH TIBC

FURTHER TESTS etc.
- SOURCE OF BLEEDING OCCULT BLOOD? ENDOSCOPY, SIGMOIDOSCOPY

REFER
- REFER
- REFER
- REFER

PERIPHERAL NEUROPATHY
- ↓ VIBRATION SENSE
- ↓ REFLEXES

MCV, LOW FERRITIN, HIGH TIBC
- CORRECT DIET

STOOL FOR PARASITES, ? COLONOSCOPY

STOOL FOR PARASITES

? BONE MARROW etc.

MCV, B12 etc.

MCV

MCV

MCV, LOW FERRITIN, HIGH TIBC

STOOL FOR PARASITES

? BONE MARROW etc.

MCV

MCV, B12 etc.

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According to International Medical Evidence, 80 – 90% of these infections are viral, and antibiotics are of no benefit at all.

The combination of 2 or 3 symptoms (detailed in the boxes filled with grey) from the groups A, B and C suggests the presence of a viral infection.
URINARY TRACT INFECTION (U.T.I.)

FREQUENCY, DYSURIA, URGENCY, NOCTURIA = LOWER U.T.I.
FEVER, NAUSEA, MALAISE, LOIN PAIN = UPPER U.T.I.

CEPHALOSPORIN OR CO-AMOXICLAV X 7 DAYS

AT RISK OF UPPER U.T.I.
1. PREGNANCY
2. DIABETES
3. RENAL IMPAIRMENT
4. PREVIOUS U.T.I.

REFER

MSU

REVIEW

Refer to elderly woman:
MAY BE NO URINARY SYMPTOMS: CONFUSION SHOCK FEVER ANOREXIA
POSITIVE DIPSTIX
TRIMETHOPRIM 200 mg bd X 3 DAYS
RECURRENT X 4 PER YEAR
(MSU)
TREAT WITH APPROPRIATE ANTIBIOTIC

POSITIVE DIPSTIX
ROUTINE MSU AT FIRST ANTE-NATAL ATTENDANCE
TRIMETHOPRIM 200 mg bd X 3 DAYS
POS
TREAT WITH CEPHALOSPORIN OR NITROFURANTOIN X 7 DAYS
NEG
REPEAT MSU
PROPHYLACTIC NITROFURANTOIN 50 mg AT NIGHT X 3 MONTHS

NEG
PROPHYLACTIC NITROFURANTOIN 50 mg AT NIGHT
POS
REPEAT MSU

Refer to pregnant woman:
NON-PREGNANT ADULT WOMAN
PREGNANT WOMAN
YOUNG ADULT MALE
ELDERLY MALE
CHILDREN
POS DIPSTIX
TRIMETHOPRIM X 7 DAYS
MSU
POS
NEG
SUSPECT PROSTATISM
MSU, PSA ECHO PROSTATE, ? CREATININE
PROPHYLACTIC TRIMETHOPRIM 50 mg\ DAY

INVESTIGATE FOR SEXUALLY TRANSMITED DISEASE

PROPHYLACTIC NITROFURANTOIN 50 mg AT NIGHT

TRIMETHOPRIM 200 mg bd X 3 DAYS

Refer to young adult male:
TRIMETHOPRIM 200 mg bd X 3 DAYS

NEG
POS
RECURRENCE
INVESTIGATE FOR SEXUALLY TRANSMITED DISEASE

Refer to elderly male:
POS DIPSTIX
TRIMETHOPRIM X 7 DAYS
MSU
NEG
POS
REFER

Refer to children:
POS DIPSTIX
TRIMETHOPRIM X 7 DAYS
MSU
NEG
POS
REFER

Refer to non-pregnant adult woman:
MAY BE NO URINARY SYMPTOMS: CONFUSION SHOCK FEVER ANOREXIA
POSITIVE DIPSTIX
TRIMETHOPRIM 200 mg bd X 3 DAYS
RECURRENT X 4 PER YEAR
(MSU)
TREAT WITH APPROPRIATE ANTIBIOTIC

Refer to notes:
a. TRAUMATIC U.T.I.: 1 – RELATED TO SEXUAL INTERCOURSE
TRY:
1. LUBRICANT JELLY
2. SINGLE DOSE OF ANTIBIOTIC AFTER INTERCOURSE
3. EMPTY BLADDER AFTER INTERCOURSE
b. SYMPTOMS WITH NEG DIPSTIX: CONSIDER CANDIDA, CHLAMYDIA

Notes on October 2003
KEY DIAGNOSTIC CRITERIA:
1. LOW MOOD
2. PESSIMISM
3. SENSE OF FAILURE
4. DISSATISFACTION
5. GUILT
6. SELF – DISLIKE
7. SELF – HARM
8. SOCIAL WITHDRAWAL
9. INDECISIVENESS
10. SELF – IMAGE CHANGE
11. WORK DIFFICULTY
12. FATIGABILITY
13. ANOREXIA
14. SLEEP DISTURBANCE
   - EARLY MORNING WAKENING
15. FEELS WORST IN MORNING

DEPRESSION

LOW MOOD, GUILT, WORST IN MORNING, EARLY MORNING WAKENING

MAKE DIAGNOSIS
SELECT AND START TREATMENT

REVIEW EVERY 1 – 2 WEEKS TO WEEK 6

ASSESS RESPONSE WEEK 6

CLEARLY BETTER
CONTINUE TREATMENT 6 MORE WEEKS

A LITTLE BETTER
CONTINUE TREATMENT (ADJUST DOSE)

NO BETTER or SIDE – EFFECTS
ADD TO or CHANGE TREATMENT

REVIEW 1 – 2 WEEKS

CLEARLY BETTER
ASSESS RESPONSE (WEEK 12)

NO BETTER

COMPLETE REMISSION?

NO

CONTINUE MEDICATION for 3 – 9 MONTHS?
MANTENANCE TREATMENT

RELAPSE

CHANGE TREATMENT

REFER PSYCHIATRIST

CHOICE OF MEDICATION
TRICYCLIS VERSUS SSRI'S:
1. BOTH ARE AS EFFECTIVE AS EACH OTHER
2. FEWER SIDE – EFFECTS WITH SSRI's:
   TRICYCLICS:
   - SEDATING – MAY BE GOOD
   - DRY MOUTH
   - CONSTIPATION
   - IMPOTENCE
   - URINARY RETENTION
   SSRI's:
   - NON – SEDATING
   - LOSS OF APPETITE
   - NAUSEA
   - HEADACHE
   - OCCAS BOWEL DISTURBANCE
3. BOTH TAKE 2 – 3 WEEKS for BENEFIT
4. REPORTS OF ↑ SUICIDE RISK WITH SSRI's, NOT SUPPORTED BY EVIDENCE.
5. TRICYCLICS MUCH CHEAPER

REMEMBER SUICIDE RISK
PAEDIATRICS

RECURRENT FEBRILE CONVULSION:
1. 33% CHILDREN WITH FC HAVE A RECURRENCE
2. RISK INCREASED IF THERE IS A FAMILY HISTORY OF FC.
3. RISK HIGHER IF MOTHER HAD FC.
4. INCREASED RISK OF RECURRENCE IF PARENTS OR SIBLINGS HAD EPILEPSY
5. SHORTER THE FEBRILE EPISODE CAUSING THE FC, THE GREATER THE RISK FOR RECURRENCE
6. RISK OF RECURRENCE IS NOT RELATED TO WHETHER FC WAS SIMPLE OR COMPLICATED
7. 9% OF CHILDREN HAVE AT LEAST 3 FEBRILE CONVULSIONS
8. 75% RECURRENCES ARE WITHIN 1 YEAR AFTER FIRST FC AND 90% ARE WITHIN 2 YEARS
9. IF CHILD IS < 1 YEAR OLD AT FIRST FC, RISK OF RECURRENCE IS 50%. IF CHILD IS > 4 YEARS OLD AT FIRST FC, RISK OF RECURRENCE IS 10%

EPILEPSY INCIDENCE AND FC:
EPILEPSY RISK AFTER FC IS 2 – 4%
7% IF 1 PRECIPITATING FACTOR
22% IF 2 PRECIPITATING FACTORS
49% IF 3 PRECIPITATING FACTORS

FEBRILE CONVULSIONS
AGE 6 MONTHS TO 6 YEARS ASSOCIATED WITH FEVER > 38°C (USUALLY FAMILY HISTORY OF FC. FEMALES MORE OFTEN THAN MALES)

CONVULSION

IMMEDIATE TREATMENT:
1. AIRWAY: – DECUBITUS LATERALIS POSITION, EXTEND NECK, OPEN MOUTH, ANT. LUXATION OF JAW
2. THERMAL CONTROL: TAKE OFF CHILD’S CLOTHES, VENTILATE ROOM
3. OTHER POSSIBLE MEASURES: – ? INTRAVENOUS FLUIDS, ? RECTAL DIAZEPAM 0.1 – 1 mg\ kg

AGE 1 – 5 YEARS
1. 1. AGE > 5 YEARS
2. LASTS < 10 MINUTES
3. GENERALISED TONIC \ CLONIC
4. NO POST – ICTAL DEFICIT
5. NO NEUROLOGICAL DEFICIT
6. NORMAL NEUROLOGICAL EXAMINATION

EPILEPSY RISK AFTER FC IS 2 – 4%
7% IF 1 PRECIPITATING FACTOR
22% IF 2 PRECIPITATING FACTORS
49% IF 3 PRECIPITATING FACTORS

CONTINUE GENERAL MEASURES

? OTITIS MEDIA, ? TONSILLITIS, ? UTI etc.
? ANTIBIOTICS

FEBRILE CONVULSION

SIMPLE FEBRILE CONVULSION
LOOK FOR CAUSE OF FEVER

CONTINUE GENERAL MEASURES

COMPLICATED FEBRILE CONVULSION

ANY ONE OR MORE OF THESE CRITERIA

ADMIT TO HOSPITAL

1. AGE < 1 YEAR
2. CONVULSION LASTS > 10 MINUTES.
3. UNILATERAL CONVULSION
4. POST – ICTAL NEURO DEFICIT
5. PSYCHOMOTOR RETARDATION PRIOR TO CONVULSION
6. ABNORMAL NEUROLOGICAL EXAMINATION

 admitted
**SEVERITY OF DEHYDRATION**

- **MILD**
  - CONSCIOUSNESS: NORMAL
  - RECOCOLOURATION OF SKIN: Normal 2 sec
  - MUCUS MEMBRANES: Normal
  - TEARS: Normal
  - PULSE RATE: Normal
  - RESPIRATORY RATE: Normal
  - BLOOD PRESSURE: Normal
  - PULSE QUALITY: Normal
  - SKIN TURGOR: Normal
  - FONTANELLE: Normal
  - EYEBALLS: Normal
  - URINE VOLUME: Low
- **MODERATE**
  - CONSCIOUSNESS: LETHARGIC
  - RECOCOLOURATION OF SKIN: Reduced 2 – 4 sec
  - MUCUS MEMBRANES: Dry
  - TEARS: Reduced
  - PULSE RATE: Slightly ↑
  - RESPIRATORY RATE: Normal
  - BLOOD PRESSURE: Normal
  - PULSE QUALITY: Normal
  - SKIN TURGOR: Slow Return
  - FONTANELLE: Normal
  - EYEBALLS: Normal
  - URINE VOLUME: Low
- **SEVERE**
  - CONSCIOUSNESS: CONFUSED
  - RECOCOLOURATION OF SKIN: Very Dry
  - MUCUS MEMBRANES: Absent
  - TEARS: Absent
  - PULSE RATE: Reduced
  - RESPIRATORY RATE: Normal
  - BLOOD PRESSURE: Postural Hypotension
  - PULSE QUALITY: Weak
  - SKIN TURGOR: SLOW RETURN
  - FONTANELLE: Depressed
  - EYEBALLS: SUNKEN
  - URINE VOLUME: Oliguria

**DIARRHOEA**

- **CHILD WITH ACUTE DIARRHOEA**
  - FULL CLINICAL EVALUATION – GROWTH, NUTRITION etc.
  - ABNORMAL
    - ABNORMAL
      - REFER
  - NORMAL CHILD
    - ? DIETARY CAUSE
      - YES
        - CORRECT DIET
      - NO
        - REFER
  - NOT DIETARY CAUSE
    - ? SURGICAL CAUSE
      - YES
        - REFER
      - NO
        - NOT SURGICAL CAUSE
          - DEFINE CLINICAL TYPE AND SEVERITY OF DEHYDRATION
          - ADMIT TO HOSPITAL

**CAUSES:**

1. **BACTERIAL**
   - a. SALMONELLA
   - b. SHIGELLA
   - c. E. COLI
   - d. CAMPYLOBACTER
2. **VIRAL**
   - ROTAVIRUSES
3. **PROTOZOA**
   - GIARDIA
4. **FUNGAL**
   - CANDIDA

**ORAL RHIDRATION SOLUTIONS :**

1. **FIRST 4 – 6 HOURS**
   - 50 – 100 ml/ kg / 24 hours
2. **6 – 12 HOURS**
   - 10 ml/ kg FOR EVERY BOUT OF DIARRHOEA

**ASSESS :**

1. GRAVITY OF DIARRHOEA
2. DISORDER OF ELECTROLYTES
3. NUTRITION
4. PASSING URINE
5. SIGNS OF INFECTION
**Acute Otitis Media**

**Risk Factors:**
1. Large number of children in family
2. Large group community
3. Allergic environment
4. Family history
5. Not breast-fed
6. Low socio-economic level
7. Iron deficiency
8. Passive smoking
9. Chronic tonsillitis
10. Eustachian dysfunction
11. Immuno-deficiency

**Other Causes of Otitis Media:**
1. Otitis externa
2. Serous mucous otitis
3. Chronic otitis
4. Acute parotitis
5. Dental problems
6. Tonsillitis
7. Rhinitis
8. Cough
9. Deafness
10. Failure
11. Headache
12. Drowsiness
13. Photophobia
14. Myalgia
15. Asthenia
16. Fever
17. Crying
18. Vomiting
19. Encephalitis
20. Meningitis
21. Brain abscess
22. Lethargy
23. Convulsions

**Organisms:**
1. Pneumococcus
2. Haemophilus influenzae
3. Staphylococcus
4. Viruses
5. Enterobacteria

**Antibiotics:**
- **< 2 years old:** 10 days
- **> 2 years old:** 5 days

**Follow-Up:**
- In 3 weeks

**Complications:**
- Mastoiditis
- Paralysed facial nerve
- Meningitis
- Brain abscess
- Acute labyrinthitis

**Otorrhoea:**
1. Purulent = Acute otitis media
2. Blood
3. Clear

**Conjunctivitis:**
- Plus

**Follow-Up:**
- In 3 weeks

**Recovery:**
- 50%

**Failure:**
- 5 – 10%

**Admit to Hospital**
**Acute Tonsillitis**

**Paediatrics**

- Fever, Pharyngeal Hyperaemia
- Enlarged Tonsils, Dysphagia
- Anorexia, Purulent Exudate
- Regional Lymphadenitis
  
  (Petechiae on Soft Palate = Viral)

- Under Age of 3 Years: Almost all are Viral
- Over Age of 3 Years:
  - 70% are Viral
  - 30% are Bacterial – Almost all Strept. A
    (But Remember Diphtheria)

**Symptomatic Treatment:**

1. Paracetamol
2. Antiinflammatory for Pain, Fever
3. Oral Fluids +

**Rapid Strept. Antigen Test:**

Will give a positive diagnosis for streptococcal tonsillitis, but is not widely available

**Differential Diagnosis:**

1. Diphtheria
2. Infectious Mononucleosis
3. Acute Epiglottitis
4. Pharyngitis
5. Rhinopharyngitis
6. Herpangina
   (Cocksackiae)

**Absolute Indications:**

1. Dysphagia
2. Upper Airway Obstruction (Nocturnal Apnoea)
3. ? Tumour – Asymmetry
4. Haemorrhage

**Relative Indications:**

1. > 5 attacks \ Year
2. Peritonsillar Abscess
3. Mouth Breathing and Snoring
4. Speech Problems due to Large Tonsils in Child > 6 Years

**Under Age of 3 Years:**

**Child Under 3 Years**

- Viral Cause

**Over Age of 3 Years:**

**Child Over 3 Years**

- Antibiotic

**Antibiotic:**

- Penicillin V for 10 Days
- Macrolide for 10 Days
- Amoxicillin for 6 Days
- Cephalosporin for 6 days

**Symptomatic Treatment:**

- Improver

**Review after 2 Days:**

- Improved
- No Improvement

**Evaluates Indications for Tonsillectomy**

- Recovery
- Improved
- No Change

**Refer**

**October 2003**
BRONCHIOLITIS

RISK GROUPS:
1. CONGENITAL HEART
2. CHRONIC RESPIRATORY PATHOLOGY eg: MUCOVISCIDOSIS
3. IMMUNO DEFICIENCY
4. PREMATURITY
5. < 6 WEEKS OLD
6. UNFAVOURABLE SOCIO – ECONOMIC CONDITIONS
7. MALNUTRITION

AVERAGE AGE 8 MONTHS, VIRAL INFECTION
COMMON, INCUBATION PERIOD 5 DAYS
CHARACTERISED BY COUGH, WHEEZE, PYREXIA
SIGNS: Tº > 38º C, WHEEZE ON AUSCULTATION,
RIB RECESSION, SOMETIMES RALES, OTITIS

DANGER SIGNS:
1. RESPIRATORY RATE > 60 / min
2. INTERCOSTAL RECESSION
3. SEVERE DYSPNOEA \ APNOEA
4. HYPOXIC CYANOSIS
5. ↓ LEVEL OF CONSCIOUSNESS
6. PROFUSE SWEATING
7. UNDER 3 MONTHS OLD

NO RISK FACTORS CLINICALLY MILD

PLACE IN DORSAL POSITION

1. ELIMINATE SECRETIONS
   a) MAKE MORE LIQUID
      i) ↑ ORAL FLUIDS
   b) β₂ SYMPATHOMIMETIC INHALATIONS
   c) CROCODILE COMPRESSION

2. BRONCHODILATORS
   a) INHALED OR ORAL β₂ SYMPATHOMIMETICS
   b) SUBCUTANEOUS ADRENALINE

ONE or MORE RISK FACTORS

ANTIBIOTICS IF SUSPECT SECONDARY INFECTION

FOLLOW – UP 2 DAYS

IMPROVING

CONTINUE AS ABOVE

NOT IMPROVING

REFER

COMPLICATIONS OF BRONCHIOLITIS:
ASTHMA
COPD
SECONDARY INFECTION

NO RESPONSE

? STEROIDS

? REFER

YES – ONE or MORE DANGER SIGNS

ADMIT TO HOSPITAL

ADMIT TO HOSPITAL

NO

SEVERE

NO

ONE or MORE RISK FACTORS
PAEDIATRICS

CAUSES

BREAST FEEDING INFANTS:
1. MAJORITY VIRAL:
   a. ADENOVIRUS
   b. PARA INFLUENZAE
   c. MEASLES
2. BACTERIAL:
   a. H. INFLUENZAE
   b. NEUMOCOCCUS
   c. STAPHYLOCOCCUS (RARE BUT CAUSES DAMAGE)
   d. CHLAMYDIA (NEONATES)

OLDER CHILDREN:
1. VIRAL:
   a. PARA INFLUENZAE
   b. MYXOVIRUS
   c. RHINOVIRUS
2. BACTERIAL:
   a. NEUMOCOCCUS
   b. MYCOPLASMA
   c. H. INFLUENZAE

SYMPTOMS AND SIGNS OF PNEUMONIA

NO

SEVERE?

YES

CHEST X-RAY

SIGNS OF SEVERE INFECTION

NO

YES

TREATMENT BASED ON AGE AND AETIOLOGY

< 2 YEARS

ANTIBIOTIC AND SYMPTOMATIC TREATMENT

RE-EVALUATE 48 HOURS

SYMPTOMATIC TREATMENT ± ANTIBIOTIC

1. ? STEROIDS or ANTIINFLAMMATORY
2. AMOXICILLIN

THERAPEUTIC FAILURE AND PHYSICAL CONDITION HOW SEVERE

TREAT 10 DAYS RE-EVALUATE 3 WEEKS

MODIFY ANTIBIOTIC THERAPY, CHANGE TO MACROLITE, CEFUROXIME, ERYTHROMYCINE

GETTER

RE-EVALUATE 48 HOURS

NOT BETTER

THERAPEUTIC FAILURE BUT PHYSICALLY AND SOCIALLY SATISFACTORY

ADMIT TO HOSPITAL:
1. CHILDREN <3 MONTHS (AND ? <6 MONTHS)
2. RADIOLOGICAL EVIDENCE OF
   a. MASSIVE PNEUMONIA
   b. PLEURAL EFFUSION
   c. PNEUMOTHORAX
   d. MEDIASTINAL ADENOPATHY

RISK FACTORS:
1. COMORBIDITY
   a. MUCOVISCIDOSIS
   b. CONGENITAL HEART LESION
   c. IMMUNODEFICIENCY
2. SOCIAL CONDITIONS
   a. DIFFICULT TO TREAT AT HOME
   b. POOR FOLLOW-UP

SIGNS OF SEVERE INFECTION:
1. RESPIRATORY RATE >60 INFANTS >30 OLDER CHILDREN
2. CYANOSIS OR ↓ RESPIRATION
3. HYPERCAPNIA
4. NOT EATING
5. CIRCULATORY COLLAPSE
6. ↓ CONSCIOUSNESS
7. DEHYDRATION

ADMIT TO HOSPITAL:

 signage of severe infection:
1. symptoms and signs of pneumonia:
   NO
   YES
   CHEST X-RAY
   SIGNS OF SEVERE INFECTION
   NO
   YES

useful for:
   a. diagnoses,
   b. rare conditions,
   c. complications

paediatrics

causes

breast feeding infants:
1. majority viral:
   a. adenovirus
   b. para influenza
   c. measles
2. bacterial:
   a. h. influenza
   b. neumococcus
   c. staphylococcus (rare but causes damage)
   d. chlamydia (neonates)

older children:
1. viral:
   a. para influenza
   b. myxovirus
   c. rhinovirus
2. bacterial:
   a. neumococcus
   b. mycoplasma
   c. h. influenza

symptoms and signs of pneumonia:

no

severe?

yes

chest x-ray

signs of severe infection

no

yes

treatment based on age and aetiology

< 2 years

antibiotic and symptomatic treatment

re-evaluate 48 hours

symptomatic treatment ± antibiotic

1. ? steroids or antiinflammatory
2. amoxicillin

therapeutic failure and physical condition how severe

treat 10 days re-evaluate 3 weeks

modify antibiotic therapy, change to macrolite, cefuroxime, erythromycine

better

re-evaluate 48 hours

not better

therapeutic failure but physically and socially satisfactory

admit to hospital:
1. children <3 months (and ? <6 months)
2. radiological evidence of
   a. massive pneumonia
   b. pleural effusion
   c. pneumothorax
   d. mediastinal adenopathy

risk factors:
1. comorbidity
   a. mucoviscidosis
   b. congenital heart lesion
   c. immunodeficiency
2. social conditions
   a. difficult to treat at home
   b. poor follow-up

useful for:
   a. diagnoses,
   b. rare conditions,
   c. complications

signs of severe infection:
1. symptoms and signs of pneumonia:
   no
   yes
   chest x-ray
   signs of severe infection
   no
   yes

October 2003
### GROWTH

<table>
<thead>
<tr>
<th>AGE</th>
<th>WEIGHT</th>
<th>HEIGHT</th>
</tr>
</thead>
</table>
| BIRTH          | ALBANIAN BABIES 3 – 3.2 Kg (BOYS 150 g > GIRLS)  
NORMAL BIRTH WEIGHT ≥ 2.5 Kg 
WEIGHT LOST AFTER BIRTH REGAINED BY DAY 12 | 50 – 51 cm  
NORMAL ≥ 47 cm |
| 6 MONTHS       | BIRTH WEIGHT DOUBLED                  |                             |
| 1 YEAR         | BIRTH WEIGHT TRIPLED                 | 72 – 75 cm                  |
| 3 YEARS        | BIRTH WEIGHT QUADRUPLED              | AT 2 YEARS 81 – 84 cm       |
| ANNUALLY       | AFTER AGE OF 2 YEARS, 2 Kg GAINED EACH YEAR |                           |

### FACTORS AFFECTING GROWTH:
1. NUTRITION  
2. INFECTION  
3. LIVING CONDITIONS (eg: HYGIENE)  
4. PHYSICAL ACTIVITY  
5. DRUGS  
6. CULTURE, ECONOMIC  
AND SOCIAL CONDITIONS  
7. EFFECTIVE RELATIONS WITH OTHERS

### PAEDIATRIC DEVELOPMENTAL MILESTONES

<table>
<thead>
<tr>
<th>0 – 4 WEEKS</th>
<th>2 MONTHS</th>
<th>4 MONTHS</th>
<th>6 MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CUDDLES</td>
<td>1. SMILES RESPONSIVELY</td>
<td>1. SQUEALS, LAUGHS, BABBLLES</td>
<td>1. COOS, COPIES, BABBLE</td>
</tr>
<tr>
<td>2. REGARDS FACE</td>
<td>2. LISTENS TO BELLS/VOICES</td>
<td>2. REACHES FOR OBJECT, GRASPS</td>
<td>2. REACHES FOR OBJECT, GRASPS</td>
</tr>
<tr>
<td>3. SYMMETRICAL MOVEMENTS</td>
<td>3. VOCALIZES</td>
<td>3. GRASPS</td>
<td>3. TRANSFERS</td>
</tr>
<tr>
<td>4. FOLLOWS TO MIDLINE WITH EYES AND FIXES</td>
<td>4. WHEN PRONE, LIFTS HEAD, NECK, UPPER CHEST WITH FOREARM SUPPORT</td>
<td>4. OPENS HANDS, PUTS HANDS TOGETHER, HITS AT OBJECTS</td>
<td>4. NO HEAD LAG ON PULL TO SIT</td>
</tr>
<tr>
<td>5. Responds to Sound/Voice</td>
<td>5. SOME HEAD CONTROL IN UPRIGHT POSITION</td>
<td>5. HEAD ERECT ON SITTING, HOLDS HEAD WELL, IN PRONE POSITION HEAD UPRIGHT</td>
<td>5. SITS, MINIMAL SUPPORT</td>
</tr>
<tr>
<td>6. Head up when Prone at 1 month</td>
<td></td>
<td>6. ROLLS OVER</td>
<td>6. STANDS WHEN PLACED, BEARS WEIGHT</td>
</tr>
<tr>
<td>7. Flexed posture</td>
<td></td>
<td>7. Recognises Parent</td>
<td>7. IF LITTLE SOCIAL CONTACT, AVOIDS EYE CONTACT, INFREQUENT VOCALISATION</td>
</tr>
<tr>
<td>9. Stays awake &gt; 1 hour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Parent/Child interaction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Paediatric Developmental Milestones

<table>
<thead>
<tr>
<th>9 MONTHS</th>
<th>12 MONTHS</th>
<th>15 MONTHS</th>
<th>18 MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Looks for fallen object</td>
<td>1. Bangs two blocks together</td>
<td>1. Indicates things he/she wants</td>
<td>1. Drinks from glass</td>
</tr>
<tr>
<td>5. Sits without support</td>
<td>5. Social games</td>
<td>5. 3 – 10 words</td>
<td>5. Walks up steps with help</td>
</tr>
<tr>
<td>11. Plays interactive games</td>
<td></td>
<td></td>
<td>11. Stacks 3 blocks</td>
</tr>
<tr>
<td>12. First teeth</td>
<td></td>
<td></td>
<td>12. Kisses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 YEARS</th>
<th>3 YEARS</th>
<th>4 YEARS</th>
<th>5 YEARS</th>
<th>6 – 8 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Kicks ball</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Horizontal and circular lines with pen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Names family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**NORMAL ANTENATAL CARE**

An adequate Antenatal Care reduces 17 times the Mother mortality rate, 6 times the Perinatal mortality rate and 3 times the Low Birth Weight.

To achieve this is strongly recommended:

**Encourage pregnant women to do at least 6 antenatal consultations, which are recommended to be done in the following periods if the pregnancy is considered repeatedly normal:**

<table>
<thead>
<tr>
<th>Consultation's elements:</th>
<th>I Consultation</th>
<th>II Consultation (w. 12)</th>
<th>III Consultation (w. 16 – 18)</th>
<th>IV Consultation (w. 20 – 24)</th>
<th>V Consultation (w. 28)</th>
<th>VI Consultation (w. 34 – 38)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aims &amp; Objectives</strong></td>
<td>Positive diagnoses of the intrauterine pregnancy</td>
<td>Careful evaluation of the Lab test results</td>
<td>Confirm the normal ongoing of pregnancy</td>
<td>Confirm the normal ongoing of pregnancy</td>
<td>Evaluate for early diagnoses of pregnancy disorders of the III-rd Trimester.</td>
<td>Evaluate for early diagnoses of pregnancy disorders of the III-rd Trimester.</td>
</tr>
<tr>
<td></td>
<td>Pregnancy age and excepted day of delivery</td>
<td>Determination of the pregnancy Risk Group (write it in the medical record)</td>
<td>Check fetal development</td>
<td>Check fetal development</td>
<td>Evaluate &amp; monitor the fetal wellbeing (according to the Albanian Law, the fetus in this moment is considered viable)</td>
<td>Determine the fetal presentation &amp; position as well as delivery strategy</td>
</tr>
<tr>
<td></td>
<td>Ask for basic Lab Tests</td>
<td>Further management of pregnancy according to the Risk Group</td>
<td>Ensure maternal wellbeing</td>
<td>Ultrasound screening of fetal malformations (to be done before 24-th week).</td>
<td>-</td>
<td>Breast examination (prepare for breastfeeding)</td>
</tr>
<tr>
<td></td>
<td>Suspect, diagnose &amp; manage High Risk Pregnancies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinical &amp; obstetrical Examination</strong></td>
<td>Personal History</td>
<td>Personal History (to be completed)</td>
<td>Personal History (to be completed)</td>
<td>Personal History (to be completed)</td>
<td>Personal History (to be completed)</td>
<td>Personal History (to be completed)</td>
</tr>
<tr>
<td></td>
<td>Family History</td>
<td>Family History (to be completed)</td>
<td>Family History (to be completed)</td>
<td>Family History (to be completed)</td>
<td>Family History (to be completed)</td>
<td>Family History (to be completed)</td>
</tr>
<tr>
<td></td>
<td>Detailed Obstetrical History</td>
<td>Detailed Obstetrical History (plus information about actual pregnancy)</td>
<td>Detailed Obstetrical History</td>
<td>Detailed Obstetrical History</td>
<td>Detailed Obstetrical History</td>
<td>Detailed Obstetrical History</td>
</tr>
<tr>
<td></td>
<td>General Physical Examination and pelvic examination (with patient’s consent only)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lab Tests</strong></td>
<td>CBC, Hgb Urinalyses</td>
<td>CBC, Hgb Urinalyses</td>
<td>CBC, Hgb Urinalyses</td>
<td>CBC, Hgb Urinalyses</td>
<td>CBC, Hgb Fasting Blood Glucose Urinalyses</td>
<td>CBC, Hgb Fasting Blood Glucose Urinalyses</td>
</tr>
<tr>
<td></td>
<td>Culture of urine specimen</td>
<td>Direct microscopy of vaginal secretions</td>
<td>Direct microscopy of vaginal secretions</td>
<td>Direct microscopy of vaginal secretions</td>
<td>Direct microscopy of vaginal secretions</td>
<td>Direct microscopy of vaginal secretions</td>
</tr>
<tr>
<td></td>
<td>Direct microscopy of vaginal secretions</td>
<td>Anti Rhesus Immunization (if mother Rh – and father Rh +)</td>
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</tr>
<tr>
<td></td>
<td>Blood type &amp; Rhesus Factor</td>
<td>Optional: serological tests for: Toxoplasmosis, Rubella, CMV, HbsAg, HIV test</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Immunization &amp; prophylaxis</strong></td>
<td></td>
<td></td>
<td>Anti-Tetanus Vaccine (I-st doses)</td>
<td>Anti-Tetanus Vaccine (II-nd doses), Anti D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gammaglobuline (if indicated)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Counseling &amp; Education</strong></td>
<td>Counsel &amp; educate the pregnant women for appropriate hygiene and nutrition regimen (according to the CPG) as well as for Antenatal Care consultation’s schedule.</td>
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</tr>
</tbody>
</table>

**Normal Antenatal Care**
The puerperium is considered the time between the end of the III-rd Period of Labor, till the time when all organs are back to the normal structure and function.

### Aims & Objectives

**Consultation’s Elements**

<table>
<thead>
<tr>
<th>Care during the First Postpartum Hour</th>
<th>Consultation before discharging from Health Center</th>
<th>Postnatal Consultation on days 3, 5 and 7 (especially in primiparas)</th>
<th>Consultation between day 7 and the 6-th week postpartum</th>
<th>Consultation of the 6-th week postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ensure that the patient is and remain in good clinical condition (monitor carefully for early postpartum complications). Prevent the early postpartum hemorrhage.</strong></td>
<td><strong>Permit the discharge from Health Center if the necessary conditions are fulfilled.</strong> Ensure a normal puerperal period.</td>
<td><strong>Ensure a normal puerperal period.</strong> Take care of the breasts &amp; breastfeeding, especially in primiparas.</td>
<td><strong>Ensure a normal puerperal period.</strong> Consider carefully all the complaints of women in postpartum period.</td>
<td><strong>Ensure a normal puerperal period.</strong> Offer an adequate method of Family Planning.</td>
</tr>
</tbody>
</table>

### Clinical & Obstetrical Examination

**Patient’s general condition**

- Ask and consider the patient’s complaints
- Physical Examination (vital signs etc.)
- Obstetrical Examination of delivery tract (look for tears & hemorrhage)

**Patient’s general condition. Ask and consider the patient’s complaints**

- Urination and defecation.
- Physical Examination Obstetrical Examination (uterine involution, breasts, the lohia, episiotomy wound)

**Patient’s general condition. Ask and consider the patient’s complaints**

- Urination and defecation (the defecation must occur on day 5)
- Physical Examination Obstetrical Examination (uterine involution, breasts, the lohia, episiotomy wound)

**Patient’s general condition. Ask and consider the patient’s complaints**

- Evaluate carefully patients with previous pregnancy disorders which require monitoring.
- Physical Examination Obstetrical Examination (uterine involution, breasts, the lohia)

### Procedures

**The patient can be washed, drink and eat.**

- The young mother should be encouraged to stay with the newborn infant (if the newborn condition permits this).

- **Take off the episiotomy sutures** (if non-absorbable)

### Lab Tests

**CBC, Hgb Coagulation Investigations Urinalyses**

- If the immediate postpartum lab tests are normal, then it is not necessary to do more tests, if the clinical condition has remained stable.

- **CBC, Hgb, Coagulation Investigations, Urinalyses (if the patient haven’t done them)**

- **CBC, Hgb, Coagulation Investigations, Urinalyses (if the patient haven’t done them)**

**CBC, Hgb Urinalyses Direct microscopy of vaginal secretions PAP Smear (refer if not available)**

### Immunization & Prophylaxis

**Anti D Gammaglobuline if indicated), within the first 72 hours postpartum.**

**Measles & Rubella immunization** (if the patient has not been vaccinated before)

**Educate the patient for recognizing symptoms of Puerperal Sepsis, Postpartum Bleeding & Mastitis. Counsel to avoid intercourse and vaginal tampons for 4 weeks. Schedule appointment for Family Planning**

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**Discuss with patient the Birth Control plan Rise awareness for the importance of PAP Smear. Counsel women to seek adequate care in clinic where PAP Smear and cytological follow up is available.**

**Educate the young mothers to repose as long as desired and to drink a lot of liquids too.**

- **Educate the young mothers to repose as needed.**

- **Educate the young mothers to repose as needed.**

- **Educate the young mothers to repose as needed.**

- **Educate the young mothers to repose as needed.**
Pregnant woman < 20 weeks with vaginal bleeding

**HISTORY & PHYSICAL EXAMINATION:**
- Menstrual delay
- Positive pregnancy test
- Clinical evidence of pregnancy
- Presence of vaginal bleeding

Menstrual delay < 20 days
- And one of the following symptoms
  - Low BP (or with this tendency), tachycardia, clinical evidence of acute progressive anemia

Menstrual delay > 20 days
- And
- Reassuring general clinical condition (stable BP and Heart Rate)

**TREATMENT:**
- Treat with I/V perfusions
- Refer urgently to OB/GYN Hospital

**COMPLICATIONS:**
- No pelvic examination
  - And
  - Severe bleeding
  - And
  - Mild bleeding

- Pelvic examination performed
  - Incomplete Abortion
  - Inevitable Abortion
  - Threatened abortion

**MANAGEMENT:**
- Close monitoring of:
  - Quantity of bleeding
  - General condition of mother (BP, Pulse)
- Specific Antenatal Care
- Treatment:
  - Bed rest
  - Progesterone (200mg/day till 12-th week)
  - Spesmolytics (as needed)
  - Anti D Gammaglobuline (if indicated)
- Refer to OB/GYN for further evaluation and if complicated.

Pregnant woman > 20 weeks with vaginal bleeding

**HISTORY & PHYSICAL EXAMINATION:**
- Positive pregnancy test and clinical evidence of pregnancy in II-nd and III-rd trimester
- Uterine bleeding
- Pain (+/-)

**QUESTIONS TO ASK:**
- General conditions, BP, Pulse
- Quantity and quality of bleeding (dark, pure or with coagula)
- Physical evaluation of abdomen for possible peritonism
- Physical evaluation of uterus for elevated basal tonus/contractions
- Auscultation and evaluation of FETAL HEART BEAT
- Determine the duration of bleeding

**EVALUATION:**
- Evaluate for clinical evidence of acute progressive anemia

**TREATMENT:**
- Treat immediately with I/V perfusions (Lactated Ringer, NaCl, Dextrose 5%) placing I/V canule in 1 or 2 veins.
- Urgent Referal in an OB/GYN hospital where the emergency Cesarean Delivery can be performed

**FETAL ASSESSMENT:**
- Fetal assessment:
  - FHB if pregnancy > 28 weeks
  - Fetal Movements (ask carefully)

**GOOD FETAL CONDITION:**
- Reassuring FHB
-FM – felt regularly

**BAD FETAL CONDITION:**
- Non-reassuring FHB
- Reduced LF

**TREATMENT:**
- Good fetal condition: Referral to OB/GYN for further evaluation
- Missed Abortion (ultrasound)
- Incomplete Abortion
- Inevitable Abortion
- Threatened abortion

**What should be done with these patients?**
- A careful monitoring of vital signs and general conditions (BP, Pulse)
- Repeated assessment if quantity and quality of bleeding.
- Ask for further tests as follows:
  - CBC, Hgb, Hct, coagulation investigations, blood type (ABO, Rhesus)
  - Assess FM (teach the patient)
  - Assess FHB (if gestation > 28 weeks)
  - Refer if maternal and fetal indications occur (excessive bleeding, maternal demise, altered FM, non-reassuring FHB)

**Referral:**
- REFER OB/GYN for further evaluation and if complicated.
MANAGEMENT OF POSTPARTUM HEMORRHAGES AND Puerperal Sepsis

**Primary Postpartum Bleeding**

- Postpartum Bleeding (within the first 24 hours)
  - Assess the placental delivery!
  - Placenta completely delivered.
  - Assess the uterine contracture: Palpate the uterine fundus!
  - Well contracted uterus
  - Evidence of uterine atony
  - Traumatic bleeding
  - Atonic bleeding

  - **Assess the vital signs:** BP, Pulse
  - **Assess the quality and quantity of bleeding**

- Bleeding doesn’t stop
  - It is sufficient to jeopardize the mother

- Placental retention
  - Refer after:
    - Assessing carefully the vital signs
    - Placing an I/V perfusion and continuously giving liquids

  - Enlarged uterus / delayed uterine involution
  - Normal uterus; are there signs of genital infection?

  - **Immediate management:**
    - Uterine massage
    - Assess the vital signs:
      - BP, Pulse
      - Color of the skin (acute anemia)
      - Give one uterotonics drug (oxytocine 5 IU i/m, i/v or methylergometrine 0.5 mg i/m or i/v)
    - Assess carefully the quality and quantity of bleeding, being aware for possible mother jeopardy.

- Uterine Rupture
  - Refer after:
    - Assessing carefully the vital signs
    - Placing an I/V canula and giving I/V liquids
    - Administer a broad spectrum antibiotherapy.

- Patient in bad condition
- Patient in good condition

- **Manage the patient as follows:**
  - Broad spectrum antibiotherapy:
    - Amoxicillin 2g bolus PO, followed by 500mg TID for 7 days
    - Plus Metronidazol, 500mg BID for 7 days
    - Effective hydration

- Patient in good clinical condition
- Patient in bad condition

- **Refer (no urgent) after:**
  - Administering broad spectrum antibiotherapy.
  - Placing an I/V canula and beginning the administration of perfusions (NaCl, Lactated Ringer, etc)

- **Refer immediately after:**
  - Isolating the patient
  - Administering broad spectrum antibiotherapy

- Patient with bleeding between the first 24 hours, till 6 weeks postpartum

- Presence of signs and symptoms of genital infection in women during puerperal period

- The discharge (lochia) with no evidence of abnormal postpartum bleeding

**Secondary Postpartum Bleeding and Puerperal Sepsis**

- Patient with bleeding between the first 24 hours, till 6 weeks postpartum
  - Assess the uterine dimensions and its involution.
  - Enlarged uterus / delayed uterine involution
  - Normal uterus; are there signs of genital infection?

  - **Assess & monitor:** Vital signs: BP, Pulse
    - Color of skin (acute anemia)
    - Quantity and quality of bleeding
    - Administer I/V liquids (if necessary)

  - **Manage the patient as follows:**
    - Isolating the patient
    - Administering broad spectrum antibiotherapy

  - Patient in bad condition
  - Patient in good condition

- Patient in good condition
- Patient in bad condition

- **Refer immediately after:**
  - Isolating the patient
  - Administering broad spectrum antibiotherapy

- Educate the patient in distinguishing symptoms of mother demise
- Reevaluate after 48 hours for treatment scores
Hypertension

**Refer to specialist for any of the following:**
- Secondary hypertension
- Patients under 35 years
- BP not controlled on 3 drugs
- Increasing proteinuria
- Renal impairment (creatinine > 180)
- Malignant hypertension

Chest Pain

**Refer to specialist if any of the following are suspected:**
- Pulmonary embolus
- Pneumothorax
- MI
- Pericarditis
- Prinzmetal angina
- Cardiomyopathy
- Aortic aneurysm

Angina (Ischemic Heart Disease)

**Refer to specialist in any of the following situations:**
- Previous MI
- Comorbidity – eg Diabetes, COPD
- Uncontrolled HT
- Arrhythmia, valve disease, LV dysfunction
- Under 50’s for coronary angiogram
- Under 60’s for exercise test
△ Medication resistance
△ Extensive vascular disease, stroke, TIA
△ Anaemia
△ Family history of CHD / sudden death, males < 50, females < 55
△ Diagnosis uncertain

Heart Failure

Refer to specialist if heart failure is complicated by:
△ Arrhythmia
△ Thrombo-Embolic Events
△ Acute decompensation
△ Drug toxicity
△ Or if patient requires beta blockers, IV therapy, anticoagulation, investigation or CABG

Diabetes Mellitus

Refer to specialist in the following situations:
△ Children – same day
△ Newly diagnosed insulin-dependent diabetics
△ Diabetic now pregnant
△ Gestational diabetes
△ Protracted vomiting /ketonuria
△ Hypertensions or raised lipids difficult to control
△ Targets not met
△ Complications

Urinary Tract Infections

Refer to specialist in the following situations:
△ Pregnant woman with second positive MSU or recurrence on prophylactic antibiotic
△ Young adult when the infection is recurrent and sexuality transmitted disease suspected
△ Elderly male, prostatism suspected
△ Child with positive MSU
△ Failure of appropriate treatment
Anemia

Refer to specialist:
- To find the source of upper or lower GI bleeding
- Endoscopy, colonoscopy, sigmoidoscopy
- When associated with hepato/splenomegaly, lymphadenopathy, abdominal mass
- When due to inflammatory bowel disease

Asthma and COPD

Refer to specialist in the following circumstances

Asthma
- Children using high dose of corticosteroids
- Poor control on maximum dosage of drugs
- Acute severe asthma not responding to treatment
- Life-threatening asthma

COPD (Chronic Obstructive Pulmonary Disease)
- Severe COPD
- COPD with heart failure
- Under 40
- Severe, decreasing FEV1
- Symptoms worse than fall in function tests
- Repeated infection
- Unclear diagnosis

Acute Low Back Pain

Refer to specialist in any of the following situations:
- Medication resistance
- Worse after treatment/management strategy
- Cauda equina syndrome
- X-Rays Scan, CBC, ESR when cancer or fracture suspected
- Evidence of non-spinal medical problem
Depression

Refer to specialist in any of the following situations:
- Medication resistance
- Relapse after full course of medication
- Suicide Risk

Fatigue

Refer to specialist in any of the following situations:
- Fatigue has pain as a factor related to bone tumor, cerebral tumor
- Prolapsed intervertebral disc, osteomyelitis, fractures, rheumatoid arthritis suspected
- Major disease suspected – eg cancer, diabetes, etc.

Acute tonsillitis

Absolute and relative indications for referral to specialist

Absolute:
- Dysphagia
- Nocturnal apnoea
- Asymmetry of tonsils
- Haemorrhage

Relative:
- No improvement after appropriate treatment
- > 5 attacks per year
- Peritonsillar abscess
- Mouth breathing and snoring
- Speech problems due to large tonsils in child > 6 years

Bronchiolitis

Refer to specialist:
- When the patient has one or more risk factors
- When the patient has one or more danger signs
- When no improvement 2 days after antibiotics
Lower Respiratory Tract Infections

Refer to specialist:
- When there are signs of severe infection clinically
- When there are risk factors present
- When there is radiological evidence of:
  - Massive pneumonia
  - Plural effusion
  - Pneumothorax
  - Mediastinal adenopathy
- When there is therapeutic failure and physical condition now severe
- When child is < 3 months (and < 6 months if physical condition poor)

Acute Otitis Media

Refer to specialist for the following complications:
- Mastoiditis
- Paralyzed facial nerve
- Persistent serous otitis media
- Therapeutic failure
- Refer to the hospital in the following conditions:
  - Meningitis
  - Brain abscess
  - Acute labyrinthitis

Diarrhoea

Refer to the hospital for any of the following conditions:
- Severe dehydration
- Failure of oral rehydration
- Surgical cause of diarrhoea
- Growth, physical, or nutritional abnormality
Febrile Convulsions

Refer to the hospital for any of these conditions:
△ Complicated febrile convulsion
△ Meningism

Temperature management

Refer to the hospital for any of these conditions:
△ Serious signs
△ Not tolerating fever well
△ Meningism
△ Signs of severe infection
△ Cardiopulmonary disease
△ Less than 1 month old

Antenatal Care

Refer to the OB/GYN specialist the following conditions related to pregnancy:
△ Patients with other medical problems (Renal disease, heart problems, hepatic, pulmonary, rheumatological, neurological, psychiatric problems etc)
△ Pregnant patients with hyperglycemia (every type of Diabetes)
△ Patients with High Risk or Very High Risk score
△ Patients with the following pregnancy related disorders:
  △ Preeclampsia
  △ Threatened Preterm Labor
  △ Active Preterm Labor
  △ Post term Pregnancy (refer in the beginning of the 41-th week)
  △ Polyhydramnios
  △ Oligoamnios
  △ Evidence of Intrauterine Growth Restriction
  △ Preterm Rupture of the Membranes
  △ Prelabor Rupture of the Membranes
  △ Patients with Rhesus negative blood type, especially if there is evidence of Rhesus Isoimmunisation or problematic Obstetrical history
  △ Abnormal Fetal Presentation (breech, transversal etc, evaluated at term or during active Preterm Labor)
△ Previous Cesarean Delivery (refer at the beginning of the 37-th week)
△ Previous Myomectomy (refer at the beginning of the 37-th week, do this for every women undergone to gynecological operations)
△ Patient with Infertility history
△ Multiple Pregnancy
△ Patients < 85 kg
△ Wherever there is evidence of delivering a big fetus (> 4 kg) without evidence of antenatal disease, refer at term (37-th week)
△ Patient with every type of disorders that impact the integrity of pelvic bones, including fractures of the lower limbs, TB etc (to be referred at 36 – 37-th week, or during active preterm labor)
△ All types of pelvic viciature to be referred at term (37-th week) without occurrence of active labor.
△ Patients that manifest any type of delay during the first period of labor (dilatation)

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**Bleeding during pregnancy**

**Refer to the OB/GYN Hospital if one of the following occurs:**

△ All patient with less than 20 days of menstrual delay
△ Poor general condition
△ Heavy bleeding with no pelvic examination
△ Incomplete Abortion
△ Inevitable Abortion
△ Missed Abortion
△ Threatened Abortion if complicated or for evaluation
△ Reduced Fetal Movements
△ Concern Over Fetal Heart Beat

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**Primary Post – Partum Haemorrhage**

**Refer to the OB/GYN Hospital if one of the following occurs:**

△ Retained Placenta
△ Persistent bleeding or danger to mother (after recommended management procedures)
△ Cervical tear with heavy bleeding or difficult to repair
△ Ruptured uterus
△ Poor general condition
Secondary Post – Partum Haemorrhage

Refer to the OB/GYN Hospital if one of the following occurs:
- Enlarged uterus / delayed involution
- Poor general condition
- Persistent bleeding

Puerperal Sepsis

Refer to the OB/GYN Hospital if one of the following occurs:
- Associated with abnormal bleeding
- Poor general condition
- Treatment failure
Referral Policy and Procedure

POLICY: Primary care physicians make referrals to specialists based on approved referral guidelines (attached) in combination with good clinical judgment.

PROCEDURE:

1. The primary care physician decides that a referral is needed.
2. The primary care physician completes the top portion of the referral form (attached) and gives to the patient to take to the specialist.
3. The primary care physician gives the patient information about available specialists and timing of consultants.
4. The patient arranges the specialist visit and gives the referral form to the specialist.
5. After seeing the patient, the specialist
   a) Completes the bottom portion of the form
   b) Keeps the top portion of the form on file
   c) Returns the bottom half of the page to the patient
6. The patient returns the completed form to the primary care physician, who puts the form in the patient’s medical record.
7. The primary care physician communicates directly with the specialist for clarification of the treatment plan as needed.

Approved by: ________________________________________________

Director of Primary Care

Date: ___________________________________________________________________