Cerebral Palsy

Don't be static about this "static" insult

Cerebral palsy is the commonest reason for referring a child to paediatricians ("delayed milestones") and geneticists ("looks dysmorphic") on outreach visits to District Hospitals.

What is the problem?
Cerebral palsy is a disability of motor function due to a non-progressive insult to a developing motor brain. Although the damage to the brain is static, the motor manifestations are often dynamic in nature due to the fact that brain maturation continues throughout childhood.

Why is it important?
Cerebral palsy impedes the major goals of childhood: GROWTH and DEVELOPMENT.
Cerebral palsy is common, and places a major burden on families and caregivers already struggling with the challenges of poverty and other illnesses.

What is the severity?
There is a wide spectrum of severity from those with a mild motor handicap who may go on to attend university, to those who are severely physically and profoundly mentally handicapped. Severe physical handicap does not necessarily imply severe mental handicap. Severity assessments of cerebral palsy MUST be individualised.

What are the implications of severity?
It is only through individualisation of the severity assessment that appropriate plans for optimising the child’s growth and development can be made.

What is the cause?
In our setting the commonest causes of cerebral palsy are perinatal hypoxia and intracranial infections. A good history will establish these as causes. If history does not elicit perinatal hypoxia or previous meningitis, then you must look further.

What are the associated problems?
- Intellectual impairment
- Language, visual hearing impairment
- Epilepsy
- Behavioural problems (aggression, disruptiveness, self-mutilation)
- Nutrition

How do I diagnose cerebral palsy?
- Take a history
- Do an examination

What is the management?
1) The Child
The main aim for anyone in the team caring for a child with cerebral palsy is to optimise growth and development. Components of this include: overcome spasticity and avoid contractures, correct/aid visual and hearing impairment, assist with feeding difficulties.
The second aim is to minimise complications such as ARI, UTI, epilepsy, constipation, malnutrition.
At each assessment/follow up visit, it is wise to check the following:

<table>
<thead>
<tr>
<th>Things to check</th>
<th>Who to consult</th>
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<tbody>
<tr>
<td>Motor Ambulation, seating, position, spine</td>
<td>Occupational therapist (OT), physiotherapist, Orthopaedic surgeon</td>
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<tr>
<td>Diet Weight, feeding problems, constipation, stools, gastrooesophageal reflux</td>
<td>Dietician, speech therapist, OT, paediatrician</td>
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<tr>
<td>Seizures Seizure chart, drug levels, side effects</td>
<td>Paediatrician, paediatric neurologist</td>
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<tr>
<td>Dermatology Skin conditions e.g. skin infections</td>
<td>Dermatologist</td>
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<td>Dentistry Teeth, gums</td>
<td>Dentist</td>
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<td>Behaviour Aggression, self-injury, sleep, pica</td>
<td>Psychologist, psychiatrist</td>
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<td>Advocacy Finances, child support, care dependency grants</td>
<td>Social worker</td>
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<tr>
<td>Sensory Vision, hearing</td>
<td>Ophthalmologist, audiologist</td>
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<td>Infections Immunizations, respiratory, urinary tract infections</td>
<td>Paediatrician</td>
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<tr>
<td>Sexuality Menses, sexual activity, contraception, STI’s</td>
<td>Gynaecologist, paediatrician</td>
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2) The family
Siblings: rivalry
Parents: CDG, wheelchair/buggy

3) The community
Support groups
Schooling
Access

What is the follow up?
Rehab team

What are the preventive measures?
Good perinatal care and proper treatment of meningitis
Keep the joints supple
  - Home-based: exercise programme and mental stimulation
  - Health service-based: encouragement and support, no false hope

What Information should be given to caregivers?
Be definite about the problem being life-long, and about there being no cure. Avoid shopping around. Emphasise what CAN be done:
  - G&D optimisation
  - CDG
  - Wheelchair
  - Schooling

Document your findings and plan in the RTHC or any other patient held record, so that the child is not repeatedly re-referred by clinic staff concerned about the "delayed milestones" or "dysmorphia".