

Paediatric screening is an important area of medical practice because, in the words of Dr Mary Sheridan, "There is general agreement that the younger the age at which children with physical, mental, emotional or social disabilities are discovered and fully assessed, the more hopeful is the prognosis for amelioration or complete rehabilitation." Family Doctors have many paediatric consultations, and they know the parents and therefore the family and social background, so they are in a good position to integrate personal preventive medicine with curative medicine. In the past the emphasis was on dealing with individual paediatric problems as and when they presented themselves to the medical profession, but nowadays the trend is to try and look at the whole child.

The reasoning behind attempting to screen *all* the children

in a particular community, e.g. Malta, is to detect a relatively small number of conditions for which extremely effective treatment is available to prevent complications.

Examples of such physical conditions are congenital dislocation of the hip, deafness, squint and undescended testes. The simple test for a click in the hips if applied to every newborn and six week old baby can prevent CDH completely. If we could check the hearing of every 7 to 9 month-old baby in Malta routinely, by very easily applied distraction hearing tests, we could identify deaf babies early enough to give them a hearing aid and give the parents guidance on how to stimulate the child. Early intervention of this kind should increase the child's chances of acquiring a reasonable amount of speech, of education, and of life opportunities, and prevent behaviour problems due to the

frustration of a young deaf child who cannot communicate. Early intervention in the case of any handicap will certainly help the parents in their difficult role. Lack of detection and action in the case of a squint may result in blindness in one eye. Undescended testes should be treated because, apart from any psychological and/or fertility problems which may develop later in life, the undescended testis is more likely to develop malignancy.

Other conditions such as phenylketonuria and hypothyroidism require biochemical screening of blood; and genetic screening is another increasingly important aspect of paediatric screening. These specialised areas of paediatric screening deserve to be the subject of further lectures. However, in this article, I want to concentrate on developmental screening in the first two years of

life. I would like to convince you that this method of screening normal child development is relevant to you in your practice, and that it is worth spending a few hours to familiarise yourselves with the simple technique I shall be showing you with the aid of a simple protocol.

First of all I would like you to look at the developmental screening chart (reproduced overleaf). You will notice that it is divided into four areas of development: motor, social, hearing and speech, and eye/hand. These four areas correspond to four main features which distinguish man from other animals: upright posture, highly developed social structure, language, and sophisticated eye/hand co-ordination resulting in the developmental and use of tools, writing and so on. The age of the child is listed in the left-hand column, and for each age one appropriate ability is listed for each age in the four separate areas of development. Thus if you look at the age six months you will see that you have listed:

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- Rises onto wrists .....*Motor*
  - Turns head to person talking .....*Social*
  - Babbles or coos to voice or music .....*Hearing/ speech*
  - Takes cube from table ....*Eye/ Hand*
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The implication here is that *most* babies of six months of age will be doing these four things — amongst many other achievements of course. If a baby of six months attends your clinic for any reason, it would be quite possible whilst he is there to screen him for normal child development by checking a few items across the page. In most cases the child will be able to do these things. In a small number of cases you will find he cannot, and will

either be able to identify straight away where the problem lies e.g. no babbling, but all other areas normal may alert you to a deaf child. Or else you may find a child who is well behind in all four areas, and he would be said to be suffering from developmental delay which would require further investigation and could possibly indicate mental retardation. In many cases you might just be a little suspicious that development is not up to expectations, and arrange to see the child again in a month. Very often the diagnosis of developmental delay is made by “increasing suspicion” after two or three visits. The difficulty is of course that child development is so variable. Most of these abilities follow a normal distribution curve so that e.g. one child may walk unaided at 8 months, another at 16 months and they both be within normal limits. All these factors must be considered, but I think you will agree that with this method you can be guided.

This is how to score on the chart:

- When you observe a child succeeding in an item put a tick in the narrow column beside the item
- When the child fails in an item put a cross
- When you are relying on the mother’s report and not your own personal observation put your tick in brackets
- If the child goes some way to attain an item, but does not complete it put “1/2”
- If you are uncertain put “?”

Go on scoring until you have found three items in a row in each field which the child is unable to do. Then draw a line across the chart to show the child’s approximate level of achievement given as an age. You can see if a child is seriously behind in one field compared to other fields, or if he/she is late in all fields.

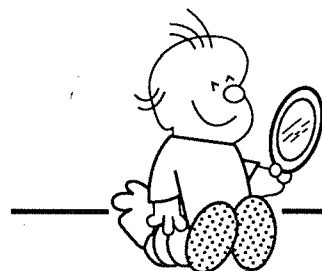
To summarize, may I suggest that in an ideal situation we would be able to go through general practice and well baby clinics to encourage developmental screening for all children. This could be combined with post natal checks at six weeks, immunisation schedules, and the concept of “Birthday check-ups”. If we were able in Malta to train our doctors to identify handicap early by following a simple standard procedure such as the correct use of this chart. If we were able to encourage family participation by the use of the media and a booklet to all new parents. If we were able to have available a Child Development Unit where parents would have easy and early access to the most highly qualified professionals on the island in the field of handicap from not only the medical field but perhaps even more importantly from the fields of Education, Psychology and Social Welfare. If we were able to achieve all these things, then I think we could be very proud indeed of our services for young children and their families. ♦

#### REFERENCES

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Date	Mth	MOTOR	SOCIAL	HEARING & SPEECH	EYE & HAND
	1	Head erect for few seconds.	Quieted when picked up.	Startled by sounds	Notices bright objects close to.
	2	Head up when prone(chin clear)	Smiles	Listens to bell or rattle	Follows ring up, down & sideways
	3	Kicks well	Alert. Follows person with eyes	Searches for sound with eyes	Glances from one object to another
	4	Lifts head and chest prone	Returns examiner's smile	Laughs	Clasps and retains cube
	5	Holds head erect with no lag	Frolics when played with	Turn head to sound	Pulls paper away from face
	6	Rises on to wrists	Turns head to person talking	Babbles or coos to voice or music	Takes cube from table
	7	Rolls from front to back	Friendly with strangers	Makes four different sounds	Looks for fallen objects
	8	Tries to crawl vigorously	Shows toy	Shouts for attention	Passes toy from hand to hand
	9	Turns around on floor	Helps to hold spoon	Says "Mama" or "Dada"	Manipulates two objects at once
	10	Stands when held up	Rings bell in imitation	Listens to watch Responds to talking	Clicks two bricks together
	11	Pulls up to stand	Finger feeds	Understands 'No'	Pincer grip
	12	Walks or side-steps around pen	Plays 'Pat-a-cake'	Three words with meaning	Points with index finger
	13	Stands alone	Waves 'Bye Bye'	Looks at pictures	Picks up small object
	14	Walks alone	Uses spoon	Knows own name	Makes mark with pencil
	15	Climbs upstairs	Shows shoes	Four or five clear words. Point to familiar toy	Places one object upon another
	16	Pushes pram, toy, horse, etc.	Curious	Knows "give", "show", "get"	Scribbles freely
	17	Climbs onto chair	Manages cup well	Babbled conversation	Watches from window
	18	Picks up toy without falling	Takes off socks and shoes.	Enjoys pictures in books	Constructive play with toys
	19	Climbs stairs up and down	Knows one part of body	6-20 words	Tower of three bricks
	20	Jumps	Imitates activities	Echoes words	Removes wrapper from sweet
	21	Runs	Puts on garment	Two word sentences	Circular scribble
	22	Walks upstairs	Tries to tell experiences	Listens to stories	Tower of five or more blocks
	23	Seats himself at table	Knows two parts of body	Demands by pointing	Copies perpendicular stroke
	24	Walks up and down stairs.	Knows and names four parts of body.	Names four toys.	Copies horizontal stroke.