HEALTH FOR ALL – A VERY DISTANT DREAM

Dear Monica,

It is now the rainy season along the Thai-Burma border.

Everything is becoming green and muddy and the washing never gets dry.

In our little town of Mae Sot, just two miles from the border with Burma, when it rains heavily it is better for the illegal migrants. The Thai policemen do not like to get wet and they temporarily stop arresting people and deporting them back to Burma.

Burmese and Karen illegal workers and others who cross the border because they need medical care are the patients of the small hospital/clinic where I have worked for the last four years. I work in the in-patient department which at the moment is very full. It is a building 30 metres long and 8 metres wide, with a tin roof, half walls and then open up to the ceiling. As you enter you see three long rows of 'beds' – long tables with a plastic sheet on top, no mattress. Most of the time all the beds are full with the patients' families camping under the beds. Often, patients are lying on a mat between the beds. It is not unusual to have 50 patients.

People are moving in, out and around at all times; new patients arriving, patients going out to the toilet or kitchen, relatives coming to visit, medics walking between the beds doing their rounds, children running and screaming everywhere, dogs entering only to be kicked out immediately, a new emergency case just being delivered semi-conscious from the back of a truck, a laboratory technician coming in to make a malaria slide from a seriously ill patient, a woman with a very sick child in her arms asking for help, an unconscious young man with severe malaria suddenly having a seizure, an extremely thin young woman dying on a bed in a corner with nobody looking after her, a baby starting to cry for no apparent reason, another new patient arriving with severe pneumonia and barely breathing (where is the oxygen?).

This is where I work. I am the only doctor, helped by a good group of young health workers. I have become used to working amidst total chaos, immersed in different smells and noises, just concentrating on the task in hand, but open to respond to other stimuli if my attention is needed.

Two years ago we established a room for severely malnourished children, just at the back of the in-patient department. The idea was to accommodate children needing specialist care and feeding, but this has proved to be only a pipe dream. Due to lack of space, this room has quickly become our paediatric ward. Children and siblings with mothers and sometimes both parents fill the room, lying on mats. We have on average 15 to 20 children, with a very high turnover. Nearly all the children are stunted from chronic malnutrition, and also wasted from kwashiorkor – a reflection of the terrible conditions they are living under back in Burma.

The spectrum of illness varies greatly from infectious diseases (falciparum and vivax malaria, typhoid, meningitis, diarrhoea, dengue, pneumonia, TB) to severe anaemia, thalassaemia, asthma, worms and flukes, beri beri, congenital diseases and of course cancer and AIDS.

Due to our very primitive setting, we deal reasonably well with infectious diseases, but not with chronic or complicated illnesses. I can refer serious cases to the local Thai hospital, but then our clinic has to pay the entire hospital bill, and the budget is not always easy to find. Back home in Italy, I have opened an account where family and friends can leave donations which are then used towards cases in special need for which I have no money. With the help of a US paediatrician who volunteered in 2002/03 we set up a web site (www.burmachildren.org) where we post medical cases of children with 'fixable' conditions for which I have no budget. We use the fund to refer the children to Chiang Mai University Hospital for diagnosis or operation. We started with congenital heart disease (PDA, VSD and transposition), one hydrocephalus and one baby with Hirschsprung's. The cost is usually not terribly high – £250 for PDA, £1,500 for transposition and £800 for VSD. I sent an email to all medical students and doctors who had worked here voluntarily over the previous four years, but only very few replied.

Last week I referred two children to the local Thai hospital, one with septic arthritis of the elbow needing drainage, and one with fever and anaemia in whom I suspected leukaemia; unfortunately this proved to be true – he had a bone marrow which showed acute myeloid leukaemia. The doctor advised me to refer the child to Chiang Mai for chemotherapy, but who will pay for the treatment? Is it even appropriate to treat this child? We are not sure about the cost which may be around £15,000, maybe more, maybe less.

So for the past few days and nights I have continued to see the face of Thu Ya Phyo smiling in front of me. What shall I do? Tell his auntie to go back home and let him die? Refer him to Chiang Mai and hope to find the money to pay for the bill? A string of 'whys' starts to run through my mind . . .

I wish you could come here and see for yourself. It would be so much easier for you to understand than for me to try and explain. I wish all children everywhere could have access to the same level of health care as our children in Europe. 'Health for all' sounds like a very distant dream for Karen and Burmese children.

Yours,
Elisabetta

Elisabetta's letter

Dr Elisabetta Leonardi worked as paediatric SHO in Lancaster in 1997. For the past four years she has been running the children's clinic on the Thai-Burmese border.

Further information is available at www.burmachildren.org

If any reader wishes to make a donation, please contact me directly on Ext 3532, Paediatric Department, RLI.

Cheques should be made payable to M Placzek (burmachildren).

Monica Placzek

MY BATTLE AGAINST CANCER

Ruth Wawszczyk
Lancaster

Nothing could have prepared me for the physical and psychological trauma of the past three years. I will never forget the day I was taken by ambulance to Borchardt Ward (the oncology ward in Pendlebury Children's Hospital, Manchester). It was June 2001 and I had just finished my Year 9 SATs. I had been becoming increasingly unwell for almost two months and had spent much of this time having all sorts of scans and tests in hospital, firstly in Lancaster and then at Booth Hall Children's Hospital in Manchester.

Finally, following biopsies of my glands and bone marrow, it was found that I was suffering from anaplastic large cell lymphoma (Stage IV) – which had spread to my lungs and also triggered a dysfunction of my bone marrow, 'HLH' (haemophagocytic lymphohistiocytosis). Within days of being diagnosed, I began the first of seven week-long sessions of intensive chemotherapy followed by a further seven months of weekly injections of vinblastine.

Ruth Wawszczyk

When the lymphoma was first diagnosed, a staff nurse asked me what I knew about cancer. My response was simply 'You lose your hair'. I have often said that it was as well that I did not know what lay ahead of me. Losing my hair was actually one of the least difficult side effects that I had to contend with. At the time of diagnosis, I was too poorly to take in all that the doctors tried to explain to me about my condition and the treatment protocol ahead. As a 14-year-old, it is not easy to have to be treated on a children's ward – no matter how caring and understanding the staff may be. At a time in adolescence when you are acutely aware of your body, it was very upsetting to have to be totally reliant on my parents and the nurses for even the most basic washing, toileting and feeding – and without much privacy! Whilst I could appreciate how poorly all the children on the ward were – and that the majority of them were much younger than me – to have 'lights out' at 8pm somehow added to the humiliation I was feeling and I fully support the need for special units for teenagers who have to be in hospital for long periods as advocated by the Teenage Cancer Trust.

Whilst my badly swollen glands seemed to respond quite quickly to the chemotherapy and the steroids and my temperature, which had been peaking at 41°C for the past six weeks or more, settled down, I equally quickly began to experience the awful side effects of the chemotherapy. At one time, my mouth and digestive tract were so ulcerated that I had to have all my food pureed like a baby's. I suffered from boils which flared up very rapidly and needed treating with intravenous antibiotics. I also got terrible pains in various parts of my body and couldn't even turn over in bed without help. The large amounts of hydration used to flush the chemotherapy drugs through my body caused my heart to race so it sounded like an army marching through my brain! My blood pressure rose during each week of intensive treatment so that I used to worry that I would not be allowed home on the Saturday night. I became very painfully constipated. I also suffered from a terrible headache following one of the spinal injections of methotrexate which were part of my week-long protocols.

One of the hardest things to cope with, however, was having to be isolated for four of my week-long courses of chemotherapy because I had contracted an MRSA infection in my Hickman Line. Not only did it become increasingly painful and stiff all around the site in my shoulder, it meant that I was cut off from all the other teenagers and children – I felt like a leper. In November 2001, however, CT scans and bone marrow tests thankfully showed no signs of active lymphoma – the battle was being won. By that time, though, my hair had completely fallen out and my body felt as if it had been ravaged by all the drugs that had been pumped into it. At times, it seems that the treatment regime for cancer is far worse than the disease itself and there were times – especially in the dead of night – when I wondered if my body could survive the effects of it all. There still followed, too, seven months of weekly injections of vinblastine and whilst the side effects were not as severe, it still took its toll on my blood counts and caused lots of aches and pains and made me feel very exhausted all the time – and I wondered whether my once-favourite foods would ever taste the same again. My life revolved around weekly visits to Pendlebury Children's Hospital for injections, regular check-ups and scans.

Perhaps what is hardest – or even impossible – to put into words, however, is the huge psychological impact of all that I have been through. I am sure that no-one ever really thinks that cancer is going to be a reality in their lives, and it is certainly not what one expects as a teenager. For months I felt as if my life was being taken away from me and all I wanted was to be 'normal' again. At a time when all my friends were busy starting on GCSE courses and planning their futures, I had to get used to a complete loss of privacy and a feeling of real powerlessness with every part of my body under scrutiny. It was very hard, too, to see other children suffering,

and to know many who have not survived the battle. Death is not something which many teenagers think about and to be faced with a life-threatening illness and to witness the deaths of other young people whom one has got to know quite well is very hard to come to terms with. I also found it extremely difficult to talk to anyone, apart from my family, about what I was experiencing. When I went back to school, my friends were glad to see me, but it was as if a curtain came down between us when I began to try to share the reality of the illness with them. It seemed that they had been advised not to 'hassle' me with questions about what I had been through – all very well-meaning but not what I wanted inside. I wanted to be able to speak about life as a cancer patient and life on Borchardt Ward and what it was like to be faced with a life-threatening illness. As my Macmillan nurse put it, it was as if I had had to grow up very rapidly and face real life and death issues whilst my peers were still coping with the normal teenage issues such as schoolwork, relationships and increasing freedom. My priorities have changed radically as a result of having anaplastic large cell lymphoma and every day is now very precious to me – but along the way, it feels as if the illness has also opened up a rift between myself and many of my peers.

When I am asked what helped me most to get through these past traumatic years, I have no hesitation in saying that I believe I owe most to my consultant at Pendlebury Children's Hospital, Rob Wynn. It has not just been his obvious skill as a haematologist, but also his very honest, caring, encouraging and reassuring manner. In a recent article in *The Guardian*, the journalist Jenni Russell said that when we are very ill and we encounter the health service 'what we want . . . is for our weakness to be responded to with great care, respect and gentleness . . . we want to be treated as a human being with an illness, not as a medical problem with an irritating person attached'. That is precisely how I felt – that to Dr Wynn and his team I was first and foremost 'Ruth', who happened to be suffering from anaplastic large cell lymphoma and that what he wanted to do was to restore 'me' to full health, not simply to treat a cancer patient. Even now, as I return for my three-monthly check-ups, I know that he is really interested in me as a person. At the ages of 14 to 17, I was at a most vulnerable stage in my life anyway and I was frightened by the illness and the side-effects of the treatment. Hospital felt like a prison and I needed reassurance. That is what Dr Wynn gave me and continues to give me.

Ruth and parent in cubicle 'C', Borchardt Ward, at night

SLOW DANCE

Have you ever watched kids
On a merry-go-round?
Or listened to the rain
Slapping on the ground?
Ever followed a butterfly's erratic flight
Or gazed at the sun into the failing night?
You'd better slow down.
Don't dance so fast.
Time is short.
The music won't last.

Do you run through each day
On the fly?
When you ask "How are you?"
Do you hear the reply?
When the day is done
Do you lie in your bed
With the next hundred chores
Running through your head?
You'd better slow down
Don't dance so fast.
Time is short.
The music won't last.

Ever told your child,
We'll do it tomorrow?
And in your haste,
Not seen his sorrow?
Ever lost touch,
Let a good friendship die
Cause you never had time
To call and say "Hi"
You'd better slow down.
Don't dance so fast.
Time is short.
The music won't last.

When you run so fast to get somewhere
You miss half the fun of getting there.
When you worry and hurry through your day,
It's like an unopened gift . . .
Thrown away.
Life is not a race.
Do take it slower
Hear the music
Before the song is over.

Written by a terminally ill young girl in a New York hospital.

The previous two articles illustrate the courage, insight, acceptance and faith of two young people affected by serious life-threatening illness.

There are important lessons here for all of us. We must be totally open and honest. We must give people time, listen to them, support and encourage. For those of us privileged enough to be caring for children and teenagers, we must never underestimate their understanding of the situation. We should be honest and reassuring, explaining what is going on. That individual needs to have confidence in you.

It is essential to make time to explore their thoughts and feelings, and listen to their questions. Children accept things better than most adults.

Finally, remember that there is a young person in there who still needs to live as normal a life as possible.

Monica Placzek

TREATING DEPRESSION IN TEENAGERS

Pat Ainsworth, Consultant in Child and Adolescent Psychiatry
Morecambe Bay PCT

CASE

Leanne was just fourteen when she was admitted to a local paediatric ward, having taken 28 paracetamol tablets around six o'clock on a Sunday evening. The fact that she vomited and that her mother noticed this when she came to her room to ask her to turn her music down and realised what she had done probably saved Leanne from serious damage. When seen by the psychiatrist, she poured out a litany of feelings of self-disgust and low self-worth going back several years. She hated everything about herself: her appearance, her personality and her lack of intelligence, and felt things would never be any better in the future. At the same time, she expressed guilt for feeling this way when she had no particular problems in life or reason for doing so. She knew her parents cared about her and were interested in her (although she did think that they favoured her younger brother) but had never felt close to them and had long since stopped confiding in them. In fact, they irritated her. Not strong academically, she was happy to attend school for the social contact and had a good group of friends, although had recently been thinking that perhaps none of them really liked her. For about two months, she had been occasionally cutting her left arm with a blade, finding it temporarily relieved her self-disgust, but this relief was short-lived. Leanne had often considered taking an overdose but this was the first time she had acted upon the impulse. She could give no trigger cause for doing so, except that she had been feeling particularly low immediately prior to the incident. The only light her mother could shed on this was that Leanne had spent most of the previous 24 hours in the company of a particular friend who had come for a 'sleepover' and who had only recently left the house. The girls had both seemed quite cheerful and to be enjoying life whilst together. Leanne's mother was very concerned about her apparently troubled state, especially the cutting, but explained that it seemed to be intermittent, not constant. She very much regretted the way Leanne did not confide in her, and added that she could also be very irritable, demanding and quite nasty towards all family members.

This is a real and recent case presenting to Child and Adolescent Mental Health Services (CAMHS); only the name has been changed. It incorporates some of the common issues specialist CAMHS are presented with in current practice.

CONCEPTS OF DEPRESSION

It used to be the prevailing view that depression rarely occurred in childhood or, if present, took a 'masked' form including less obvious symptoms such as somatic or behavioural problems, the latter phenomenon often described as 'acting out', ie expressing unhappiness by difficult behaviour rather than an overtly low mood. Now, however, it is increasingly recognised that significant depression does occur and is just as likely to be severe, resistant to treatment, long-lasting and with a tendency to recur over time as in many adults.

SYMPTOMATOLOGY

It is always important to make a distinction from 'normal' sadness as an understandable and usually short-term response to external events or stresses. The core symptoms of depression are a predominantly low mood (incorporating feelings of emptiness or flatness) plus a loss of a normal capacity to enjoy life (anhedonia), both enduring for at least two to three weeks. In addition, there is usually a number of other features, including a decreased ability to concentrate and make decisions, fatigue and other somatic symptoms, sleep disturbance, weight change and recurrent thoughts of death, suicidal ideation or behaviours. Specific cognitive features were summed up by Beck as the 'negative triad': a persistently negative view of themselves, the world and the future. These are as easily identified in young people as in adults, as in the above case.

ASSESSMENT

This may take several sessions to be confident of a firm diagnosis, but draws upon detailed interviews with the parents or caregivers, the young person and often information from key teachers. Research on structured interviewing has made it clear that there are symptoms likely to be under-reported by parents alone, eg feelings of hopelessness, suicidal ideation and, less commonly, second person auditory hallucinations. The correlations between parental and child reports of symptoms are usually low. Over recent years there has been a burgeoning of standardised self-report questionnaires focussing on depressive symptomatology, eg the Children's Depression Inventory (CDI), the Beck Depression Inventory (an adult questionnaire, but useful for older adolescents) and the Recent Moods and Feelings Questionnaire. These have value as supportive information but do not have absolute validity. No single measure assesses all features and should never replace a carefully structured face-to-face interview with the patient. They seem to have a more useful function as pre- and post-treatment measures.

EPIDEMIOLOGY

Precise epidemiology is difficult to interpret because of differing definitions of 'caseness' but current estimates (probably underestimates) are of a point prevalence of 0.5-2.5% in prepubertal children and 2-8% in adolescents.

Before puberty, the sex ratio is approximately equal. By adolescence there is a clear preponderance of females, as in adults. There is some evidence that depressive disorders are becoming more common over time, but it is difficult to be sure whether this is a real increase, or represents better detection rates, coupled with a loss of stigma in accessing mental health services. It seems clear that there has been a definite increase in the prevalence of deliberate self-harm of various kinds in this age group over recent years.

PREDISPOSING AND PRECIPITATING FACTORS

As in adults, depressive disorders in young people are heterogeneous in aetiology. There is ample evidence of a genetic basis in some cases, strongest in bipolar disorder. A history of early adversity, especially separations from caregivers, is common, as are other disturbances of social relationship, especially a poor confiding maternal relationship, as in the case study. Much research has gone into the significance of recent adverse life events, especially those associated with loss of key relationships by death, illness, marital separation or divorce.

Teasing out contributory background factors of this kind helps in formulating an approach to treatment/management in individual cases.

TREATMENTS

A) PSYCHOLOGICAL

1 Individual approaches

a Cognitive behavioural psychotherapy

This approach has come to be recognised as the most useful practical psychotherapy in depressed adults and is adaptable to many adolescents, although it does require quite a commitment and basic level of understanding on the part of the patient. The focus is on systematically identifying, analysing and changing the maladaptive (negative) cognitions which so commonly underlie the depressed mood. The elements are: self-monitoring of mood, negative cognitions automatically triggered by external events and leading to low mood, then cognitive restructuring (working at substituting corrective, ie more balanced, cognitions). Weekly sessions with the therapist draw upon diary-keeping and homework tasks. Additional techniques often incorporated include activity scheduling (increasing the amount of daily time spent in purposeful activity in an attempt to reduce the time spent in depressive rumination) and relaxation training, especially where there is a high level of associated anxiety.

b Social skills training

This is often best conducted in small groups of young people with similar problems and incorporates modelling (by therapists), role-play, performance feedback and positive reinforcement of improvement. Again, homework tasks are often provided.

c Interpersonal psychotherapy

This is a standardised approach focussing on relationships and life problems – in young people, these may include developmental tasks. There is a major disadvantage of a grave shortage of appropriately-trained and experienced therapists using this approach.

2 Family work and family therapy

Most young people remain involved with a family to some extent. It therefore makes sense to expect to involve the family in the treatment process in one way or another. It is acknowledged that this may not always be acceptable to either the young person or the family, and may need to be worked towards at a later stage in therapy rather than embarked upon immediately.

There are three principle varieties of what might be generally called 'family work':

a straightforward advice and counselling about the nature of depression and its associated symptoms, especially when the origins of the depression lie more in individual factors than in family issues.

b using the family as a treatment agent, helping with positive affirmations, activity scheduling, general encouragement and perseverance with the therapy programme etc.

c family therapy 'proper', in which there are clear contributing family factors involving distorted or dysfunctional relationships or practices and where the family is therefore the main focus for intervention.

B) DRUGS

1 Tricyclic antidepressants

The efficacy of these long-established antidepressant drugs in an adult population has been well-researched and estimated to be around 70% positive response. Equivalent studies in children/young people have been fraught with methodological differences, making them difficult to evaluate but a recent meta-analysis suggests a much less convincing response of no better than 40%. These drugs, of which the most commonly used preparations are amitryptiline and imipramine, are known to have a repertoire of side effects which can be troublesome enough to lead to discontinuing taking them. These include dry mouth, appetite suppression, postural hypotension and urinary retention. A more serious disadvantage is that they can be very toxic in overdose, having a specific and irreversible cardiotoxic effect.

2 Monoamine oxidase inhibitors (antidepressants)

This group of antidepressants seems to have a place in treating 'atypical' cases of depression in adults, ie where there is excessive anxiety, even phobic states, somatisation and a reverse pattern of diurnal variation. The need to adhere to a very strict diet because of the risk of the 'tyramine' effect producing sudden hypertension, coupled with the way many teenagers are naturally non-compliant, means that few child and adolescent psychiatrists would risk recommending these drugs.

3 Selective serotonin reuptake inhibitors (antidepressants)

Over the last decade, this group of antidepressant drugs has become preferred to the TCAs in treating adult patients, because of their relative lack of troublesome side-effects and safety in overdose. Their positive effect in depression is very similar to the TCAs. These features are the same in an adolescent population so that they have become the drugs of choice in this age group. Within the last year, however, there has been growing evidence that some preparations in this category, most notably paroxetine, are associated with an increase in suicidal ideation in under-18-year-olds. There is also some evidence of drug dependency amounting to addiction in some individuals. In December 2003 the UK Committee of Safety of Medicines banned the use of all SSRI preparations except fluoxetine in young people under the age of eighteen. The same advice was issued about the use of venlafaxine, a noradrenaline reuptake inhibitor which had come to be widely used.

4 Lithium

The use of lithium as a treatment (alongside major tranquillisers) in acute mania or as a preventative treatment for both depressive and manic episodes in bipolar disorder is well-established in adult patients and has a similar place in young people with this disorder.

C) ELECTROCONVULSIVE THERAPY

This has never been widely used in a younger age group,

especially under the age of sixteen. Recorded responses are variable and, on the whole, not impressive.

D) INPATIENT TREATMENT

This may become necessary when the depression is particularly severe or resistant to outpatient management, or where there is a threat to physical safety, such as persistent suicidal ideation or self-harming behaviours, or damage to health such as eating or drinking inadequately. Such a course of action may also be indicated where a supportive network is lacking or the family is not coping.

Unfortunately, an appropriate admission is not easily achieved with a national shortage of adolescent inpatient units and keen competition for very few places. Most adolescent units are able to offer a full range of the treatment approaches outlined above as well as the most general advantages of 24-hour supervision and respite from any stresses in the home environment. If such an appropriate placement cannot be found, admission to an adult unit may be necessary on safety grounds, but is usually second-best in meeting the youngster's needs.

OUTCOME AND PROGNOSIS

Most young people with significant depressive episodes eventually recover, although this can take up to two years. It is variously estimated in outcome studies that 50-75% have recovered within the first year and 90% by the end of the second year. A minority, however, do seem to become chronic from their first episode, with continuing symptoms after two years. More importantly, there is convincing evidence that young people diagnosed as depressed are at increased risk of subsequent episodes of depression later in life. This finding does not just apply to those with a family history of mental disorder. It seems to strengthen the case for identifying as early as possible and treating as energetically as can be achieved, those young people first presenting to specialist services in childhood and adolescence.

The size of the problem and meeting the need

There is a national shortage of consultants in psychiatry, including child and adolescent psychiatry, with an estimated 20% unfilled posts, worse in some areas (including ours) than others. Of over 700 new referrals to Morecambe Bay CAMHS in 2003, about a third fell into the 13+ age range, and of these up to half are referred because of depressive symptomatology, with or without deliberate self-harm. These cases are usually first assessed within days, or a few weeks when there is no evidence of self-harm. Treatment is potentially labour-intensive. Apart from a few of the self-harm cases where short-term crisis intervention is required, most significantly depressed youngsters require individual session every one or two weeks for several months, plus, in addition, some family input. Complete 'cures' are rare, and even after sufficient improvement leads to negotiated discharge, unfortunately, re-referral due to a degree of relapse is common later.

Acknowledgement: In preparing this paper, I have drawn considerably upon the teaching and writing of my former colleague, Professor Richard Harrington, professor of Child and Adolescent Psychiatry at the University of Manchester, who died on 22 May 2004. Richard's untimely death is an incalculable loss to Child and Adolescent Psychiatry, not just in the northwest but nationally and internationally.

During the 12 months leading to July 2003, there were 34 emergency admissions to the paediatric ward at RLI with deliberate self-harm or overdose. FGH had 22 admissions during 2003, but there appears to be a sharp increase this year.

There has been one fatality in the past five years, following a paracetamol overdose.

Monica Placzek

12 MONTH AUDIT OF CHILDREN REFERRED TO ROYAL LANCASTER INFIRMARY FOR MEDICAL EXAMINATION FOLLOWING ALLEGED ABUSE

Poonamallee Naresh, Senior SHO; JS Sandhu, Consultant, Paediatrics
Royal Lancaster Infirmary

INTRODUCTION

Serious cases of child abuse requiring a public inquiry seem to occur with uncomfortable regularity. There have been over 70 cases nationally since 1945, the latest of which was the unfortunate case of Victoria Climbie. The conclusions of the inquiries are often similar and share concerns about similar areas for improvement. These commonly involve poor documentation of the circumstances, poor ownership of decision-making and poor communication between professionals and agencies. In the most serious cases abuse is often suspected prior to death but limited awareness of child protection issues or uncoordinated responses may prevent timely action being taken.

In the Morecambe Bay area we have a significant number of children at risk. Absolute numbers are low compared to some of the larger adjacent urban centres but the figures for cases per head of paediatric population are comparable. The current number of children on the Child Protection Register (CPR) is 68, the slight majority of these being in and around Barrow-in-Furness. Particular local challenges arise from the large area, covered by different health organisations, pockets of significant deprivation, a large transient family population, and residential schools for children with social and behavioural problems.

As a result of Lord Laming's recommendations and an audit by the Commission for Health Improvement (CHI, now CHAI) there was a restructuring of the way in which child abuse referrals to the paediatric services at Lancaster were organised. The implementation of a 'hot week' consultant responsible for acute referrals, including CP cases, and the adoption of a standardised proforma for note-keeping at the Royal Lancaster Infirmary (RLI) led to a better service provision and improved communication with the other child protection agencies. The proforma documentation allows review of the findings.

This article summarises some of the statistics from the local audit for one year between February 2003 and January 2004. During this time a set protocol for history-taking, examination, documentation and sending out medical reports was implemented. A system whereby feedback from allied agencies such as the social services department was also introduced.

RESULTS AND DISCUSSION

During this period, 47 children were felt to require a review by the acute paediatricians at the RLI for an overt child protection matter. Details for this audit were available for 43 children whose records were identified. The children and young people were roughly equal in sex distribution (22 girls, 21 boys).

Age distribution

Children under the age of three were the largest presenting group with a generally equal incidence of presentation in the older age groups. The table below summarises the age frequency at presentation.

This is generally in keeping with what is described nationally and internationally, with the younger, more vulnerable sections of society being particularly at risk. In the older age groups after 12 years there was a seeming preponderance of females, quite often presenting after arguments with their parents, usually the mother.

0-2.9 years	–	10
3-5.9 years	–	7
6-8.9 years	–	7
9-11.9 years	–	5
12-14.9 years	–	9
15-17.9 years	–	5

Table 1 Age at presentation

ROUTE OF DISCLOSURE OF ABUSE

The method of coming to the attention of the paediatric services was also noted. There appeared to be no recorded cases of GP-initiated referral. Most referrals seem to have been directly by the child or by a close family member presenting to social services departments who directed the child for a medical examination to the paediatrician. Interestingly, only a small number were identified as an additional feature while attending hospital for another cause.

Self/family member	17	(40%)
Mum	4	(10%)
Dad	2	(5%)
Health visitor	3	(7.5%)
School teacher	3	(7.5%)
Police	2	(5%)
A&E	1	(2%)
Sibling	2	(5%)
Social services	2	(5%)
Mum's friend	1	(2%)
Other	6	(15%)

Table 2 Who made the initial discovery/disclosure?

FAMILY STRUCTURE

It was felt to be of interest to categorise aspects of the social circumstances of the children coming for examination. The basic family structure suggested that only 28% of the children were living with both biological parents and 56% were living with one biological parent with or without another parent. Children attending local residential schools for children with behavioural problems accounted for 9% of the children seen.

Future audits will aim to analyse the employment details as well as associated misuse of social and other drugs.

Both parents	12	(28%)
Mother mainly	19	(44%)
Father mainly	5	(12%)
Looked after, fostered	4	(9%)
Grandparents	1	(2.5%)
Not documented	2	(5%)
	1	(2.5%)

Table 3 The number of children living with type of carer

Types of abuse

The most frequent reason for referral was alleged physical abuse, accounting for 63% of cases. Alleged sexual abuse alone was an uncommon referral, as these go directly to the forensic medical examination services via the police services.

The figures identified here are a definite underestimate of those that are referred. The specific nature of the system also tends grossly to underestimate the children with less overt forms of abuse, such as those with issues of neglect and emotional abuse. These children may already be known to health and social services professionals. Their management is not necessarily that of acute assessment after a specific event. The assessment of these cases takes greater time generally with close observation of the child with the family. However, specific thresholds for child protection measures need to be defined for clear decision-making even in these cases.

Emotional abuse alone is harder to ascertain, and is usually seen in the context of another form of abuse. Neglect remains as the largest category of abuse.

Slapped	4	(10%)
Non-specific 'hit'	9	(21%)
Kicked	3	(7%)
Fall/thrown down	4	(9.3%)
Blow to head	1	(2.3%)
Pulled hair	1	(2.3%)
Thrown object	1	(2.3%)
Whipped	1	(2.3%)
Shaken	1	(2.3%)
Burns	1	(2.3%)
Large head? Sub-dural bleed	1	(2.3%)
Sexual assault	1	(2.3%)
Bite	1	(2.3%)
Forceful holding	1	(2.3%)
Neglect	9	(21%)
Not known	4	(9.3%)

Table 4 Main causes of alleged or suspected injury leading to referral

Perpetrator

In over half the cases of alleged abuse the person(s) responsible was one or both of the child's biological parents. Stepfathers were the next largest group. In many cases the cause of the injuries themselves may remain unexplained with an unknown assailant(s). In almost one-fifth of cases no definite perpetrator was identified at presentation.

Both parents	6	(14%)
Mother	6	(14%)
Father	10	(23%)
Stepfather	3	(7%)
Teacher	2	(4.6%)
Self	1	(2.3%)
Other carer	3	(7%)
Family friend	1	(2.3%)
Not known	8	(18.6%)
Not applicable	4	(9%)

Table 5 Those allegedly responsible for the abuse

ASSOCIATED DEVELOPMENTAL AND BEHAVIOURAL FEATURES

There were no definite trends of underlying developmental problems or disability identified amongst the group, nor any preponderance of children with chronic health problems. A documented history of behavioural problems was noted in six of the children (14%).

OUTCOME OF MEDICAL ASSESSMENT

The figure below illustrates the responsible adult the children were discharged to following the medical assessment.

Most children were sent home with a family member, including a social services-supported placement with a grandparent. Fourteen of the children had either foster carer placements immediately or other non-specified social services provision on discharge.

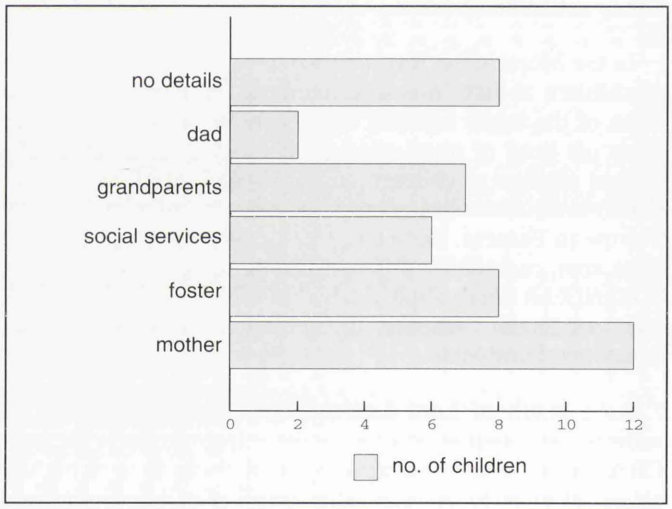


Figure 1.

DISCUSSION/CONCLUSIONS

The use of an assessment and documentation tool 'proforma' as a basis for audit does have certain limitations. The accuracy depends very much on whether and how it is completed by the professionals.

The numbers of children in the audit probably include all social services referrals. It is, however, an underestimate of the number of children referred to the paediatric department with the possibility of child abuse from within the hospital, for example presenting to A&E, orthopaedics and surgery. The number of children investigated for subdural bleeds or fractures but found to be normal, for example, is not detailed. If the opinion is that this is not 'abuse', and the child is not considered to be at particular risk, then a different recording method may be used.

Neglected children may well be known to the social services department and CPT previously, but not require a secondary centre referral.

The primary care team does take a lot of responsibility for child protection, so it was therefore surprising that there were no direct referrals for assessment from GPs during the audit period. The abused children all had a GP but the abuse seemingly had not been brought to their attention.

A high level of awareness continues to be demanded. Nationally, most children in the 'serious cases' review resulting in the death of a child had some or even significant contact with the GP prior to death, whereas fewer than half had any contact with the paediatrician. The primary care team continues to have a special role in the possible prevention and early detection of children at risk. The age group most commonly seen in GP contacts, other than the elderly, is the preschool age (under four years). Our audit figures reflect the national figures, showing this group to be particularly at risk.

The Morecambe Bay area has a varied population with some of the UK's poorest rural and urban populations. In these pockets there is significant childhood poverty, higher than average street crime and drug and alcohol misuse. Social deprivation is linked to a greater risk of child abuse. The audit did not specifically examine the social circumstances of the children referred. No conclusions could therefore be drawn as to the state of employment, housing or inebriation of the children's carers. Fewer than one-third of the children referred were living with both parents. Stepfathers were less likely to be the instigators of abuse than natural fathers.

The audit did illustrate an improvement in information sharing with the social services department and should lead to continued progress in child protection team working. This requires a continual awareness of child protection issues throughout the PCT. In this regard further information of local procedures, training courses and government documents such as 'Safeguarding Children: What to do if you think a child is being abused' are available on the child protection pages of the PCT website.

THEN AND NOW – CHILD DISCIPLINE

1953 – Character Building
"A properly administered spanking consists of turning the child over one's knee and holding his head down by firm pressure on the back of his neck. The parent's other leg may be used to clamp the child's wriggling legs firmly down. With his free hand the parent administers ten hard blows with a hair brush or similar instrument, to the bare buttocks of the child. A spanking administered with clothing really does not hurt . . . The human buttocks are admirably designed for character building purposes".
(American Psychiatrist)

June, 2004 – On Smacking Children
"The Government is under pressure from inside the Labour Party to outlaw smacking. More than 200 peers and MPs want to amend the Children Bill, which is going through Parliament. The bill would introduce a ban except in exceptional circumstances, such as when a child was in danger or might hurt another child".
(Daily Telegraph)

HOW TO DISCIPLINE WITHOUT SMACKING

Reported effects of smacking

- Aggression, disruptive, delinquent and anti-social behaviour, violent offending and low peer status
- Poor academic achievement including lower IQ, poorer performance on achievement tests, poorer adjustment to school, more attention-deficit symptoms and poorer self-esteem
- Diminished quality of parent-child relationships, with children less likely to be securely attached to parents, and to feel fearful or hostile towards them
- Increased anxiety, depression, suicidal ideation and psychiatry disorders.

Effective discipline

- Parental warmth, involvement and affectionate relationships
- Clear communication and messages, age-appropriate, as to why their behaviour is acceptable or not
- Providing fair, reasonable and clearly-defined rules, boundaries and expectations for behaviour
- Consistently following behaviours with appropriate consequences, rewards or mild non-physical punishments such as time out.

DEVELOPMENTAL ASSESSMENT IN LANCASTER 2003

Sue Brown, Consultant Paediatrician
Royal Lancaster Infirmary

BACKGROUND

Approximately one hundred pre-school children per year in Lancaster are referred to Longlands Child Development Centre (CDC) because of concerns about development or disability.

Children with obvious syndromes such as Down's Syndrome or with severe motor problems are recognised and referred as babies, whereas those with more subtle difficulties or delay with communication present a little later.

Changes were made in the initial assessment system between 2001 and 2003 to give a more flexible and prompt response, in line with 'Together from the Start'[1], and to concentrate scarce resources most effectively.

THE OLD SYSTEM

Previously children were seen first by the paediatrician who would evaluate development and decide further management. That would often involve inviting the child to a series of nursery sessions at Longlands to achieve a multidisciplinary assessment by the team.

The team

- nursery officers
- physiotherapist
- occupational therapist
- speech and language therapist
- educational psychologist
- paediatrician
- liaison health visitor.

In addition the child's own health visitor and parents play an important role in the assessment.

THE NEW SYSTEM

Now, children receive a home visit by one or two members of the team (usually health visitor and/or nursery officer). Reports are obtained from those involved with the child. An appointment with a paediatrician is offered.

All cases are discussed with the whole team to ensure appropriate management. If team members agree it is necessary, a team assessment is arranged.

Patients with a developmental age of under about 18 months can be easily assessed in a single 'baby' session at Longlands by most members of the team.

Children with more advanced development have more skills and require more detailed testing. They are seen over two or more visits in whichever venue seems most appropriate.

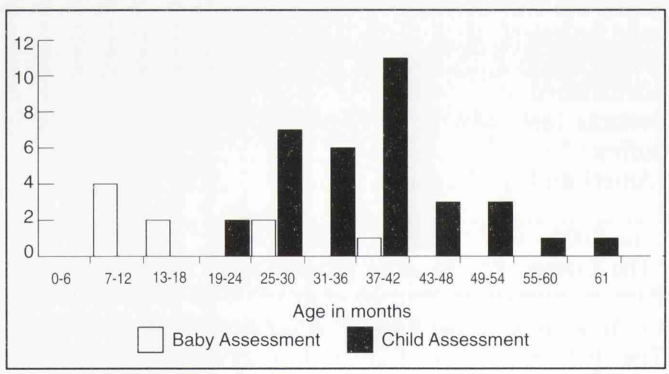
Patients not requiring team assessment can be referred to individual therapists for help and/or assistance through education services or other routes such as behaviour management groups.

EFFECTS OF CHANGES

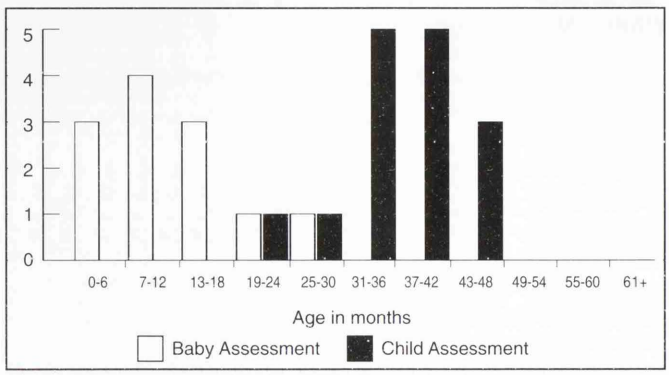
The following data refer to events or contacts recorded in 2003 and include some comparison with 2000 (the last year in which the old system had been fully operational).

	2000	**2003**
New referrals	82	**111**
Seen by consultant	82	**107**
Multidisciplinary assessment – total	53	**27**
Baby assessment	13	**12**
Average age at assessment – months	18m	**12m**
Child assessment	40	**15**
Average age at assessment – months	37m	**36m**

Numbers being assessed



Age at assessment 2000



Age at assessment 2003

A similar number of babies are undergoing multidisciplinary assessments annually but they are being seen at a much younger age. This means there can be a much more co-ordinated approach to management from an early stage. The age at assessment has continued to fall.

Fewer children are having multidisciplinary assessments and those that are seen tend to be seen at a younger age than previously.

Babies and children are able to receive help more promptly.

In the older age group we are dealing mainly with boys.

Problems

Since 2002 we have been documenting on our database the main areas of concern for each child. Many children will have more than one area of concern.

Problems found at baby assessment (12 babies)							
Problem	Medical	Motor	Communication	Social	Cognitive	Emotional	Visual
Number	7	11	7	2	6	1	2

Many of those undergoing the shorter team assessment as babies have multiple physical and cognitive difficulties, often including cerebral palsy.

Problems found at child assessment (15 children)							
Problem	Medical	Motor	Communication	Social	Cognitive	Emotional	Visual
Number	4	5	15	13	5	6	0

In the past, the children chosen for team assessment were evenly divided between those with physical problems, those with general learning difficulties and those with communication problems.

Now most of those being chosen for team assessment have communication difficulties and often come within the autistic spectrum. We have found it is really helpful to gain a multidisciplinary view of their difficulties.

Severity score

Since 2002 we have recorded on the database a severity score for each child. The severity score has been added to help with planning for education and refers to the likelihood of the child having special educational needs or needing school adaptations or special equipment.

The 'severity score' and 'areas of concern' are agreed by the team in the discussion at the end of assessment.

Apart from one baby with a chromosome problem likely to cause developmental difficulties in the future, all the patients chosen for team assessment were judged to have at least moderate difficulties and most were severe.

CONCLUSION

The change in the pathway through CDC has had a significant effect on the pattern of children undergoing team assessment.

Assessments are now being carried out at a younger age and concentrated on two groups most likely to benefit from a team approach: babies with significant developmental problems, including cerebral palsy, and children with complex problems of communication and social interaction.

The reduction in the number of assessments on children means that there is slightly more time available for therapists to treat children.

THE FUTURE

The process is being refined further. There will be improved planning of the assessments to ensure that each patient is seen by the most appropriate professionals.

We are also improving the information given to parents, partly with the help of the 'Contact a Family' CD-ROM[2].

At the initial home visit, babies are now being invited into a baby massage group so that they can meet staff and other families informally prior to the assessment.

REFERENCES

1 Together from the Start. Practical guidance for professionals working with disabled children (birth to third birthday) and their families. May 2003 LEA/0067/2003. Department of Education and Skills and Department of Health.
2 Contact a Family Directory. 2003 edition.
www.cafily.org.uk

CHILDREN WITH DOWN'S SYNDROME IN LANCASTER, KENDAL AND SOUTH LAKES

Sue Brown, Consultant; Ram Gobburu, SSHO; Paediatrics
Royal Lancaster Infirmary

BACKGROUND

Children with Down's syndrome are mainly well, with their main needs being educational and social, but they are at risk of certain conditions and do warrant regular medical review.

In light of recommendations from the Down's syndrome Medical Interest Group[1] on medical follow-up of children with Down's syndrome, a form was designed for use in community clinics to act as an aide memoire (see appendix).

Versions of this form are now being used in Lancaster, Kendal and South Lakes. To aid audit, it is updated at the annual clinic visit and is photocopied to the office at Longlands, where the data are entered onto a spreadsheet database in Excel.

AUDIT OF DOWN'S SYNDROME MANAGEMENT 2004

To audit the management of children with Down's syndrome this database was checked and up-to-date information sought as necessary. The PCIS database was searched for children with Down's syndrome and colleagues were asked for information on any other children known to them.

RESULTS

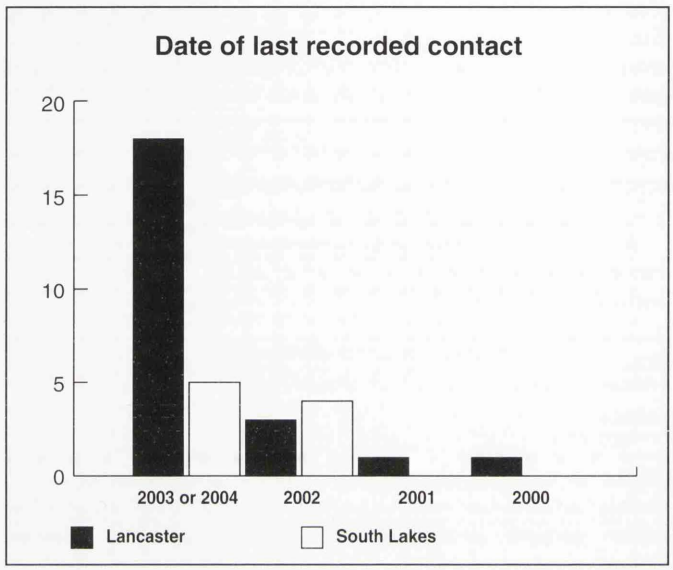
Thirty-two children with Down's syndrome were identified.

Children with Down's syndrome		
	Lancaster	South Lakes
Boys	14	5
Girls	9	4
Total	23	9
Age of children		
Age 0-4	6	3
5-8	5	3
9-12	5	1
13-16	2	0
17-20	4	2

Frequency of contact

Children should be seen annually and we would expect all children to be seen within 24 months of their last appointment. As this review was carried out in the spring of 2004, all children should have been seen in 2002, 03 or 04.

In Lancaster 91% of children were seen during those years (one family has opted out of follow-up). In South Lakes the figure was 100%.



As a result of the audit we have identified failures in the system and triggered follow-up on those who were overdue.

Recording of information

Information not recorded			
	Lancaster	South Lakes	Total
Hearing test	1	0	1
Vision check	1	0	1
Echocardiogram	1	0	1
Thyroid function	0	0	0

Problems identified

Problems identified in 31 children with Down's syndrome			
Problem	Lancaster	South Lakes	Total
Hearing impairment	14	4	18
Visual problem	12	4	16
Heart	16	5	21
Needing thyroxine	1	0	1
Behaviour	6	2	8

All the children had received a neonatal screen of hearing and most had follow-up audiology recorded. In one child in Lancaster hearing testing is not recorded on the database. There was a high incidence of hearing impairment, often due to glue ear.

Schooling

This was not consistently recorded on the database but 10 children (three from South Lakes) are recorded as attending special school.

CONCLUSIONS

The database has made the audit rather easier but there were still children not on the database. As a result of this audit we have discovered that one or two young children with Down's syndrome were being followed up entirely within the hospital clinics and were not yet known in the community.

The audit has been useful in identifying children needing follow-up.

Follow-up has improved since the database was set up but we are not reaching our standards.

The high rate of abnormal findings reinforces the need for these children to have regular and thorough review. Once these children leave school their follow-up is left with their GP as there is no equivalent of community paediatricians for adult patients.

REFERENCES

1 Basic medical surveillance essentials for people with Down's syndrome. Recommendations of the Down's syndrome Medical Interest Group 2000 onwards. www.dsmig.org.uk

APPENDIX

DOWN'S SYNDROME – MEDICAL SURVEILLANCE

NAME:

DOB:											
DATE											
AGE											
WEIGHT Kg every exam											
Weight centile-Down's chart											
Height cm Every exam (>2 years)											
Height centile-Down's chart											
OFC cm											
OFC centile											
Hearing OAE* Distraction 6-10 months Full assessment: 15-18 months Then yearly to 5 years > 5 years – 2 yearly for life	Arranged										
	Result										
Vision – red reflex* Ophthalmological review 2nd year of life-at 4 years > 4 years – 2 yearly VA NV	Arranged										
Heart clinical exam* Echo by 6 weeks (if abnormal ensure written info re antibiotic prophylaxis) Echo early adult life											
Neck ?pain, posture, torticollis, deterioration in gait, fine motor skills bowel/bladder control											
TFTs & autoantibodies-neonatal heel prick At 1 year then 2 yearly	Arranged										
	Result										
Behaviour problem ? Yes/No											
Action on behaviour											
School or nursery-referral to education											

*from baby check Code N= Normal

MORECAMBE BAY AND "*5 A DAY*"

Diane Watson, Acting Food and Health Advisor, Nutrition and Dietetics Dept;
Claire Drury, Food Development Coordinator, Public Health Dept;
Community Offices, Slyne Road, Lancaster.
Alison Nelson, NW Region *5 A DAY* Coordinator,
Public Health Govt Office NW, Manchester

BACKGROUND

The NHS Plan[1], published in July 2000, contained a commitment to introduce a national *5 A DAY* programme for England by 2004.

Increasing evidence has shown that eating at least five portions of a variety of fruit and vegetables reduces the risk of chronic diseases such as cancer[2], stroke[3] and CHD by up to 20%. Other health benefits have been suggested, including the management of diabetes, the reduction of symptoms in asthma[4,5] and prevention of the escalating problem of obesity. The incidence of obesity has risen dramatically – trebling since the 1980's. In children, almost 17% of 2-15 year-olds are obese[6].

Expert bodies including WHO[7], and the UK's Committee on Medical Aspects of Food Policy and Nutrition have recommended eating at least five portions of a variety of fruit and vegetables each day – the message that is at the heart of the Department of Health *5 A DAY* programme.

To reach this goal many people would have to more than double the amount of fruit and vegetables they currently eat. The situation is even worse for children, with the average 4-6 year-old eating only two portions of fruit and vegetables a day and one in five eating no fruit at all[8].

There are also inequalities in consumption, with those in the lowest income groups eating the least fruit and vegetables[9].

The aim of the *5 A DAY* programme is to increase awareness of, improve access to and availability of, and increase consumption of fruit and vegetables, ensuring they are easily available to everyone, wherever they live.

The programme includes local initiatives, and at a national level involves work with retailers, producers, distributors and caterers. It also includes the National School Fruit Scheme.

THE NATIONAL SCHOOL FRUIT SCHEME

The North West became part of the National School Fruit Scheme in May 2003. It was introduced after the NHS Plan 2000 included a commitment to implement a national school fruit scheme by 2004. This involves providing a free portion of fruit to infant school children to improve their nutrition, help to develop the habit of eating fruit and to give them a healthier start in life. The scheme is now funded by the Department of Health.

In Morecambe Bay the uptake of the scheme by schools has been encouraging, with 98% of schools offering this to their pupils.

Some schools have extended the scheme by self-financing fruit for the rest of the school or opening fruit tuck shops where the older children can buy a piece of fruit at minimal cost.

LOCAL INITIATIVES

The *5 A DAY* programme is funded through lottery funds. Sixty-six PCT's with poor health status and social deprivation were invited to bid for a *5 A DAY* grant to develop local *5 A DAY* initiatives.

Morecambe Bay PCT was successful in their bid and gained funding for two project workers to work over a two-year period with the most disadvantaged communities of Morecambe Bay. The focus is in distinct wards of Barrow, Lancaster and Morecambe.

The programme works within the existing framework established to implement the Morecambe Bay Food and Health Strategy. This aims to address food and health inequalities through building partnerships and developing and implementing action in early years, schools and community settings.

The programme has various strands including development of local food action plans, school/nursery food policies, growing schemes, cooking schemes and tasting opportunities.

SCHOOLS

Many of these initiatives are taking place within local schools and communities and many children have already been involved.

The programme completed its first year in June and within each locality work is underway in at least five primary and secondary schools. The aim is to support schools towards developing policies that encourage and enable pupils to choose three portions of fruit and vegetables a day within school – at snack time, in packed lunches and school meals.

Cumbria Healthy Schools have produced a 'Food in Schools' resource pack and Lancashire Healthy Schools have coordinated a packed lunch resource box.

Recently a networking event for schools and organisations that are able to support work on food issues within school

was organised in Lancaster through *5 A DAY*. Agencies involved included Lancashire County Council School Grounds Development, Environmental Health, Lancaster District Wildlife Forum and Organic Growers. All these initiatives support a whole school approach through curriculum activity and policy development.

GROWING SCHEMES

Schools and nurseries in Lancaster and Barrow have also received funds from *5 A DAY* to develop their own growing schemes.

This helps to increase awareness of where fruit and vegetables come from, encourages practical skills and gives children an opportunity to grow and taste their own home produce. This can extend into curriculum-based work and provides various opportunities in subjects such as science and maths.

COOKING SCHEMES

In Morecambe a school has recently started an after-school course for parents and children. This is being run in conjunction with the Adult College who are supporting family learning initiatives. This helps development of cooking skills, social and family interaction.

Some after-school Kids Clubs offer *'cook and eat'* as an activity and report that the children really enjoy it.

TASTING SESSIONS

Over the last year there have been at least 15 tasting sessions mainly with children in nurseries, schools, playschools and playschemes. Good practice has been collated into a *'Funky Food activities – tasting session guide'* aimed at schools and children's clubs to enable them to develop their own activities.

PROGRESS

Over the last year over 20,000 people within Morecambe Bay PCT have been involved in different aspects of the programme. Within the coming year plans will be developed to sustain current activities and develop additional projects.

There will be a continued focus on *5 A DAY* in schools through promotion of fruit for Key Stage 2 pupils, packed lunch policies and quality school meals.

EVALUATION

Evaluation of the pilot stage of the National School Fruit Scheme included the following:-

- School staff regarded the scheme as a way of improving children's health and a supplement to children's diets
- 97% of schools regarded the scheme as a support to teaching and learning about healthy eating
- Giving fruit out in individual class groups has the advantage of providing social time and time for learning
- More than half the schools surveyed had noticed an improvement in the ethos and atmosphere in classes involved in the scheme

An NOP qualitative survey showed that parents reported that more than a quarter of children and their families eat more fruit at home after their school joined the National School Fruit Scheme and that nearly half of all parents questioned think that it has made them more aware of the importance of fruit for a healthy diet. Ninety-five percent of parents say that their child always, often or sometimes ate the fruit provided at school.

The 66 PCT's chosen to participate in the *5 A DAY* initiatives are being evaluated using the FACET questionnaire. This is a tool used for assessing fruit and vegetable consumption within a population. The baseline data has been collected and will be repeated at the end of the initiatives, with results available in 2006.

To date, results from five pilot sites show that community-wide initiatives can produce important changes in people's knowledge, access and intake of fruit and vegetables.

For more information, see *www.5 A DAY.nhs.uk*

REFERENCES

1 Department of Health. The NHS Plan. London: DoH, 2000

2 Department of Health. Nutritional Aspects of the Development of Cancer. London: The Stationery Office, 1998

3 Department of Health. Nutritional Aspects of Cardiovascular Disease. London: HMSO, 1994

4 Forastiere F, Pistelli R, Sestini P, *et al*. Consumption of fresh fruit rich in vitamin C and wheezing symptoms in children (Italian studies on respiratory disorders in children and the environment). Thorax 2000;55:102-108

5 Hughes J. The case for increasing the population consumption of fruit and vegetables and the evidence for the effectiveness of interventions. Prepared for the Department of Health. 2000 (unpublished)

6 Tackling obesity in England. National Audit Office, 2001

7 World Health Organisation. Diet, nutrition and the prevention of chronic diseases. Geneva: World Health Organisation, 1990

8 Gregory J, Lowe S, Bates CJ, *et al*. National diet and nutrition survey: young people aged 4-18 years. London: The Stationery Office, 2000

9 Henderson L, Gregory J, Swan G. The national diet and nutrition survey: adults aged 19-64 years. London: The Stationery Office, 2002

UPDATE ON INFANT FEEDING

Monica M Placzek, Consultant Paediatrician
Royal Lancaster Infirmary

On infant feeding
"A pair of substantial mammary glands have the advantage over the two hemispheres of the most learned professor's brain in the art of compounding a nutritive formula for infants."
Oliver Wendell Holmes 1809-1894

Breast milk – designer milk
Kangaroos usually have one young each year. The joey remains in the pouch for nine months and continues to suckle until 12 to 17 months of age. Kangaroos can have three babies at the same time – one maturing and just out of the pouch, one developing in the pouch and one embryo in pause mode. There are four teats in the pouch, each one producing milk of different composition, ideally suited to meet the nutritional demands for each stage of maturity and development.

The majority of non-breast-fed infants receive a cow's milk-based formula. The various brands have minor differences and choice can be left to parents.

WHICH MILK?

It is widely accepted that nature knows best, and therefore breast milk is the ideal nutritional formula for infants. However as fewer than 30% of babies are breast-fed for longer than four weeks it is essential that infant formulae should be designed with the required nutrients for optimal growth and development, while at the same time ensuring absolute safety.

SOYA FORMULA AS SOLE NUTRITION

Over recent years increasing numbers of infants have received a soya-based formula as sole nutrition, the reason being either that the infant or sibling has suspected lactose intolerance or cow's milk protein intolerance (CMPI), or as a vegan option. The choice of soya has been discouraged for several years in allergy and CMPI, as up to 40% of these infants will also develop an intolerance to soya. Recent discussions have raised more serious concerns because of the isoflavones in soya formulae and their potential impact on the longterm reproductive health of infants. Isoflavones are oestrogen-like products, or phytoestrogens which bond to oestrogen receptors in animal models. On a weight for weight basis, an infant receiving a soya formula as sole nutrition would consume three to five times the amount of isoflavones which has been shown to affect the levels of luteinising and follicle stimulating hormones and the menstrual cycle in adult women. Other studies suggest a possible effect on thyroid function and the immune system. Little is known about any effect it may have on infants and there have been no reports of adverse endocrine events in adolescents who were fed on soya. However these concerns led the CMO to state in January 2004 that soya-based infant formulae should not be used as the first choice for sole nutrition in infants with CMPI, lactose intolerance or one of the rarer enzyme deficiencies necessitating a lactose-free formula (see attached statement).

WHAT ALTERNATIVES ARE THERE TO BREAST MILK AND COW'S MILK-BASED FORMULAE?

In an infant with symptoms of lactose intolerance on breast milk or cow's milk-based formula then a lactose-free cow's milk-based formula such as SMA LF or Enfamil Lactofree should be offered. Lactose intolerance not uncommonly develops as a temporary phenomenon after a bout of gastroenteritis, but resolves within a couple of weeks when the infant can go back onto a standard cow's milk-based formula.

When an infant has suspected CMPI, usually manifest as vomiting, abdominal pain, variable or abnormal bowel habit and failure to thrive, then a cow's milk hydrolysate feed should be offered. During the first six months of life a casein-based one such as Nutramigen or Pregestimil is recommended. The protein in these is highly hydrolysed with 95% being less than 1,000 daltons. These products are not very palatable but fortunately young infants don't seem to mind. However, an older infant will often refuse to take them in which case Peptijunior or Alfare should be used as an alternative. These are whey-based formulae which are less hydrolysed (63% of protein is less than 1,000 daltons) and are much more palatable. These infants generally need to continue on the hydrolysed formula into the second year of life by which time milk constitutes only a small proportion of calorie intake, and standard cow's milk can often be tolerated. Occasionally children remain intolerant longterm.

A very small proportion of children with CMPI cannot even tolerate the hydrolysed formula and an amino acid-based substitute is used, usually Neocate. These children will generally have been referred to hospital.

Standard formula	£3.00
Enfamil LF	£3.22
SMA LF	£3.99
Nutramigen	£7.80
Peptijunior	£8.22
Neocate	£19.50

Table 1 Cost of infant formulae 400 gm.

Formula requirements
Fluid requirements are:
0 – 3 months 150 ml/kg/24 hours
4 – 6 months 130 ml/kg/24 hours

This is usually given over six feeds per day, 3-4 hourly during the day time and 4-6 hourly overnight. Breast-fed

infants during the early weeks of life will often demand more frequent feeds until good milk production is established.

Weight gain
A newborn term infant will lose some weight initially and up to 10% is acceptable. Return to birthweight is expected by about 10 days of age. Thereafter growth is at the rate of 200 grams per week (or for those opposed to metric measurements an ounce a day except for Sundays). This holds until about four months of age.

Probiotics and prebiotics
Breast milk contains protective and immunoregulatory components that have a beneficial effect on the infant's immune system, affording protection from some infections and atopic disease. Research is now focusing on the bioactive components in human milk, aiming to achieve these same beneficial and functional effects in formula feeds.

It is probable that many of these properties are related to the microflora of the intestine. The gut is sterile at birth, but becomes rapidly colonized within days, depending on the type of feed and environmental factors. The predominant micro-organisms in a breast-fed infant are the bifidobacterium and lactobacillus, whereas the formula-fed infant will have equal numbers of bifido and bacteroides species.

Probiotics These are live microbial food components which beneficially affect the host by improving its intestinal microflora. Important ones include bifidobacterium bifidum, lactobacillus acidophilus and lactobacillus casei.

Studies have demonstrated that supplements can reduce the duration of symptoms in both diarrhoeal illness and antibiotic-associated diarrhoea. There is also growing evidence for beneficial effects in modifying allergic inflammation, eg atopic eczema.

Many 'over the counter' products are now available. It is important to ensure that the contents are live and not past their sell-by date, and that the product delivers at least two billion viable micro-organisms per dose.

Prebiotics These stimulate the growth of bifidobacteria. Important ones present in human milk are the oligosaccharides, which occur either free with sugars or bound to glycolipids or glycoproteins. They resist digestion in the small intestine and reach the large intestine where they have two important functions.

Firstly, they are prebiotics, ie they support the growth of healthy colonies of commensal bacteria. Secondly, they act as soluble receptor analogues for pathogens, thus having a direct inhibitory effect on certain pathogenic micro-organisms.

Studies to date have demonstrated that supplementation of standard infant formula with specific oligosaccharides (transgalacto and fructo oligosaccharides) results in an increased number of bifidobacteria in the stools, and the stool appearance is more similar to that of a breast-fed infant. Future research will study the longterm effect of prebiotics on the prevention of infectious disease, allergies and the modulation of the immune system.

RECOMMENDATIONS ON INFANT FEEDS FROM DIETETIC AND PAEDIATRIC DEPARTMENTS

1 Breast milk is best.

2 Children who are not breast-fed should be given cow's milk-based 'first' infant formula of the parents' choice. There is no reason to avoid cow's milk-based formula on the basis of a sibling or close relative having had suspected or proven cow's milk allergy/intolerance.

3 Children who develop symptoms of lactose intolerance on breast milk or cow's milk-based formula should be offered a lactose-free cow's milk-based formula such as SMA LF or Enfamil Lactofree.

4 Children with suspected cow's milk protein intolerance should be offered a cow's milk protein hydrolysate such as Nutramigen, Pregestimil (casein-based, first choice below six months of age), Pepti Junior or Alfare (whey-based, less hydrolysed but more palatable – useful for older infants).

5 There will be a small proportion of children with cow's milk protein intolerance who require an amino acid-based substitute, such as neocate.

6 Soya-based formulae should only be used in exceptional circumstances to ensure adequate nutrition – for example they may be given to infants with galactosaemia (tertiary specialist recommendation), infants of vegan parents who are not breast-feeding or to infants who find alternatives unpalatable.

7 Children who are already using a soya formula under the direction of a doctor or health professional do **not** need to change.

8 A doctor, dietitian or other health professional should review parents of children being given soya milk without medical supervision.

CHILDHOOD CONSTIPATION AND ITS MANAGEMENT

Carla Porter, SHO, Paediatrics
Royal Lancaster Infirmary

Constipation in childhood is a common problem facing both paediatricians and general practitioners. It features amongst the top ten referrals to paediatric outpatients. The commonest age group at presentation is between one and five years but it can present at any age.

DEFINITION

Constipation is the painful passage of hard, infrequent stools, in general less than three times per week.

It is important to know the normal range. Formula-fed infants pass, on average, three or four stools per day. The frequency in breast-fed babies varies tremendously, ranging from one small soft-formed stool per week to twelve or more watery stools per day.

Toddlers and young children vary from one every other day to two or three stools per day.

In addition to delay and difficulty in the passage of stools some children can have faecal soiling as a result of overflow of faecal fluid or semi-solid stools around a loaded rectum, with the child being unable to control the soiling. If the treatment of constipation is delayed then changes including megarectum and megacolon can occur, where the rectum and colon can become overdistended with faeces. This leads to loss of the normal sensation of 'the need to pass stool', which can result in 'soiling' of large volumes of stool.

AETIOLOGY

The causes are wide-ranging, often multifactorial, and include the following:

- *physical*: cerebral palsy, spinal injuries, Hirschsprung's and coeliac disease
- *metabolic*: hypothyroidism, hypercalceamia
- *acute illness*: any acute illness, especially if fever present
- *diet and fluids*: poor dietary fibre intake, poor water-based fluid intake, excess milk in toddlers
- *medications*: eg diuretics and analgesics
- *psychological*: fear of toileting/passing painful stools/ school toilets
- *other:* family history of constipation.

HISTORY

The importance of a good history cannot be over-emphasised in managing children with constipation. Listed below are some questions that should be asked.

- was there delayed passage of meconium at birth?
- at what age and following which circumstances did the problem start?
- what is and was the child's normal bowel pattern?
- was there an acute illness that may have precipitated it?
- how is the child's general health?
- is the child on any medication or supplements?
- what are the child's stools like – colour, smell, consistency?
- does the child pass flatus? Is it excessive or particularly smelly?
- what is the child's typical diet and fluid intake? Go through a precise 24-hour intake
- does the child use the potty or toilet?
- is there a history of soiling or encopresis?
- is there a positive family history?

SYMPTOMS AND SIGNS

The following may be present:

- poor appetite
- lack of energy
- mood changes – unhappiness, irritability, anger
- irregular bowel habit
- passage of large stools on an infrequent basis
- smelly flatus and stools
- stools with irregular texture
- withholding or straining to stop stools
- pain on passage of stools
- enuresis and urinary tract infections
- failure to thrive.

This is clearly not an exhaustive list, but shows that children with constipation can present in a variety of ways, not just noticeable delay in passing stools or abdominal discomfort.

EXAMINATION

This should include a full systematic examination looking for any signs or features of underlying organic pathology. Careful examination of the abdomen may reveal distension, tenderness and possible faecal loading. The perianal area

should be examined looking for tears, infection, fissure and tags.

A rectal examination should not be performed.

This is a traumatic experience for any child and rarely provides useful information.

INVESTIGATIONS

It is unusual for these to be necessary, unless there is concern about organic pathology.

MANAGEMENT

This is often not easy, requiring different treatment at different stages, sometimes over long periods of time and possibly requiring multiple laxatives at any one time. The evidence base for the treatment of constipation is only really secure at the level of expert opinion and clinical practice, as there are very few randomised control trials in the medical literature.

In general there are four principles in the management of constipation:

1 Diet, fluids and exercise – the importance of these cannot be over-emphasised

2 Softening of any retained stool

3 Evacuation of retained stool

4 Maintenance therapy.

The common reasons for laxatives not working are either non-compliance with medication or that they are given in an incorrect order and at an incorrect stage.

Categories of laxatives
Stimulants: these act by increasing intestinal motility and include senna, bisacodyl, sodium picosulphate and docusate.

Softeners: these are osmotic agents, acting mainly by drawing water into the bowel. They include lactulose and movicol.

A review of clinical experience and best practice papers[1-3] has allowed a general consensus review and approach to the management of constipation in the different stages as outlined below.

Stage one – diet, fluids and exercise
The importance of a good diet and plentiful fluid intake is vital in the initial management and maintenance treatment of constipation. Exercise in children is also important to emphasise.

All children who are being treated for constipation should have a discussion and be provided with written information on diet, fluids and exercise. Ideally water or water-based cordials should be given. Excessive milk and dairy products are a common cause for constipation and must be asked about specifically. A healthy child on a normal diet does not need more than half a pint of milk per day, with regular cheese and yoghurt.

Stage two – softening of any retained stools
The clinical experience and best practice papers recommend the use of four laxatives in the initial stages:

- lactulose
- movicol
- senna
- docusate.

The general consensus is to start with an initial osmotic agent, for example lactulose, and then a couple of days later to add in a stimulant, such as senna. The recommendations suggest that lactulose and senna be used initially over the other laxatives. (See below for movicol.)

Stage three – disimpaction of retained stools
This stage is not always necessary if the initial softening stage has worked well. However, for those children where the passage of stools is still a problem after initial treatment then slightly more aggressive therapy may be needed. Best practice recommendations for this stage include:

- senna
- sodium picosulphate
- movicol.

Sometimes combination therapy may be needed.

Stage four – maintenance therapy
This stage is required for months, and sometimes years, in some children and is necessary to ensure that regular stools are being passed, ideally aiming for more than three stools per week without discomfort.

Recommendations for laxatives in this stage include:

- lactulose
- senna
- bisacodyl
- sodium picosulphate
- movicol.

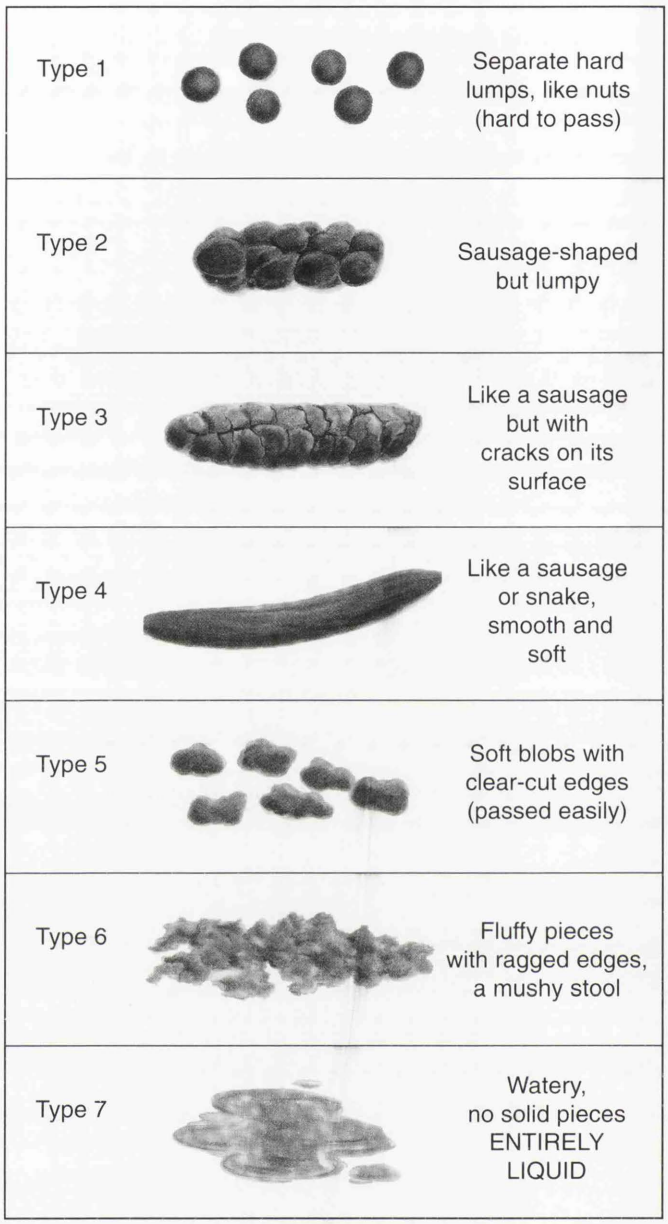
Again the general consensus from best practice recommendations is to use lactulose and senna for maintenance if at all possible.

Movicol
'Movicol Paediatric plain' is being used increasingly in our hospital for all stages of constipation management, following its success in the tertiary centres. It is an inert polymer of ethylene glycol which is an osmotic laxative. It works by absorbing water which has been drunk, but does not draw further fluid from the body into the bowel. It is therefore essential that it be taken with lots of water. The practitioner prescribing it must determine the 'stage' of constipation and prescribe the appropriate dose, explaining to parents and child that this will need adjusting either up or down as the child moves through the stages. Information on fluids, five pieces of fruit per day, exercise, post-prandial toilet visits and diary-keeping applies as with traditional laxatives and stimulants.

Movicol is a white powder, each sachet having to be mixed in a quarter of a glass of water. The recommended 'disimpaction' dose begins at 2-4 sachets per day, gradually increasing every couple of days to a maximum of 8-12 sachets per day until clearance is achieved. The dose is then reduced to a 'maintenance' level, usually 2-4 sachets per day.

To improve its effectiveness, it is essential that extra fluids are taken throughout the day – 1.5 litres (6-8 glasses) is a

good guide. Norgine, the manufacturers, produce a helpful Patient Record Card with appropriate dosages, helpful hints, diary and a wonderful 'Stool Form Scale', which is reproduced here.



The Bristol Stool Form Scale

INFANTS AND TODDLERS

This group of patients can be particularly difficult to treat. Stimulant laxatives should generally be avoided. However, softeners – mainly lactulose – can be used. Sometimes slight modifications in diet are all that is needed with a reduction in milk intake substituted by water.

GENERAL ADVICE

The importance of diet, fluids, exercise and medication must be carefully explained and stressed to both the child and parents. Star charts as both documentation and reward are helpful to aid management. Consistent post-prandial visits to the toilet for ten minutes should be encouraged. A stool diary is a 'must'.

It is helpful to enlist the support of other health professionals, for example health visitor, school nurse, dietician and psychologist. However, it is essential that advice be consistent.

The use of enemas should be avoided unless absolutely necessary. If the treatment stages are followed and appropriate doses of laxatives used then they should not be needed.

The management of constipation can certainly be a difficult one. The guidelines above are based on expert clinical experience and best practice. It is hoped that they will provide a useful guide and adjunct to the management in children.

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2 Clayden G. Management of childhood constipation. Postgrad Med J 2003;79(937):616-21

3 Candy DCA, Edwards D. Management of chronic constipation. Current Paediatrics 2003;13(2):101-106

OBESITY – A WIDESPREAD PROBLEM

- Childhood obesity is now considered to be a global epidemic. It is defined as a BMI (weight in kg divided by height in metres^2) over 30, or alternatively a BMI over 98th centile.
- It is a medical and social problem, caused by a diet too high in fat and sugars, with insufficient physical exercise.
- It causes Type II diabetes, sleep apnoea, hypertension and psychological problems in childhood.
- Obese children become obese adults, with additional problems of coronary artery disease, osteoarthritis, fatty liver and polycystic ovary syndrome.
- An underlying medical cause is unlikely, but **must** be considered if the child is of short stature.
- Refer if associated medical problem, short stature, below 24 months of age or BMI over 99.6th centile.
- WHO recommends that the government should cut down on TV advertising of fattening food, create high tax on high fat and sugar foods, and turn school vending machines into scrap metal .
- Management is to promote lifestyle changes, to encourage healthy eating and reduce sedentary activity.
- Maintenance of weight, rather than weight reduction should be the goal.

FOOD ALLERGY AND INTOLERANCE

Monica M Placzek, Consultant Paediatrician
Royal Lancaster Infirmary

INTRODUCTION

Food allergy and intolerance rank as some of the most difficult clinical problems to elucidate. With the exception of milk intolerance, coeliac disease and peanut allergy many medical practitioners still deny their existence.

Fourteen years ago my personal experience forced me to recognise that food allergy and intolerance were indeed very real problems, capable of causing symptoms in almost any part of the body. Since then, knowledge of immunological mechanisms involved has improved and this has allowed a more logical explanation and classification of adverse reactions to food (Figure 1).

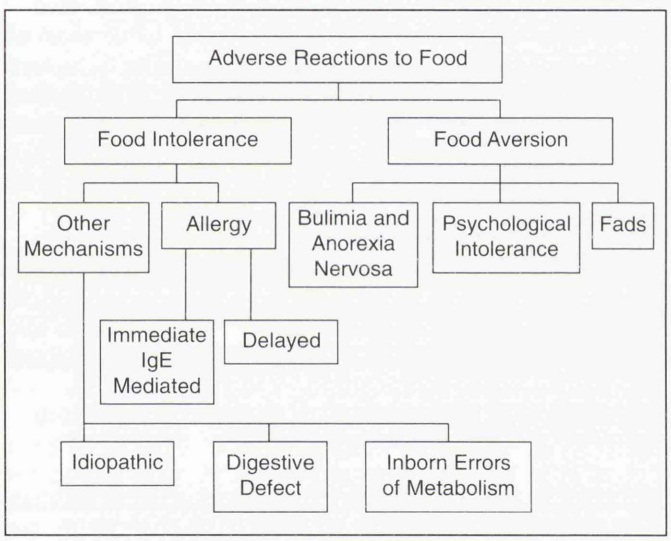


Figure 1 Classification of reactions to foods

This article relates only to those problems with a recognised immunological basis. These may be either Type 1 IgE-mediated resulting in an immediate reaction within seconds to minutes, or cell-mediated slower immunological reactions, with the formation of immune complexes and/or activation of lymphocytes. These latter reactions may cause symptoms within hours or sometimes days.

AETIOLOGY

There is good evidence that allergic diseases such as asthma, eczema, hay fever and food allergies have increased over recent years in more affluent societies. The reasons for this are probably multifactorial. The prerequisite is undoubtedly an underlying genetic susceptibility. Subsequent factors include age at presentation of the offending food, the state of the immune system and the integrity of the gut barrier. There is increasing evidence that healthy gut microflora, ie lactobacilli and bifidobacteria, may stimulate the development of the immunoregulatory pathways. Factors which may adversely affect this include antibiotics and acute gastro-enteritis. Breastfeeding is protective.

The allergies causing a reaction are proteins, characterised by their specific amino acid sequence. Most proteins have many different potential allergens, eg cow's milk has about 20, including betalactoglobulin, casein, and lactalbumin. These will remain allergenic after pasteurisation and after digestion, though they may be modified by heat treatment and hydrolysis. If the offending amino acid sequence is shared with other foods then that individual may have cross-reactions, eg latex in rubber cross-reacts with banana, kiwi, chestnut, potato and avocado; birch pollen allergy cross-reacts with the oral allergy syndrome in which sufferers experience acute pain, swelling and blisters in the mouth after eating apples.

ALLERGENS AND SYMPTOMS AT DIFFERENT AGES

(a) Infancy

Seventy percent of type 1 IgE-mediated reactions present below two years of age. Cow's milk is the commonest allergen, accounting for over 90% of reactions seen. Other allergens include egg, soya, seafoods and nuts. Classic symptoms are urticaria, swelling of the lips and eyes and wheeze within seconds to minutes of contact.

Many of these infants will also exhibit delayed non-IgE-mediated reactions, including atopic dermatitis, gastro-oesophageal reflux, infant colic, abnormal bowel habit and failure to thrive. Foods responsible include cow's milk, soya and wheat.

Once the offending food is removed from the diet then the disease improves immediately for Type 1 reactions, but may take up to six weeks for delayed reactions.

Atopic dermatitis (AD) is one of the most common clinical manifestations of food allergy in infancy. There is a strong relationship between food hypersensitivity and the severity of AD. The majority will improve by about two years of age, but persistence of AD is often associated with persistence of IgE food allergy and inhalant allergy later in life.

Milk
Eggs
Fish
Wheat
Walnuts, Hazelnuts, Almonds
Tomatoes
Citrus Fruit

Figure 2 Foods most frequently responsible for atopic dermatitis

(b) Over 12 months

1 *peanut* – This causes a classic Type I IgE-mediated reaction with symptoms ranging from swelling of the lips and eyes through to anaphylaxis. There does appear to be an increase in frequency, but it may relate to increased exposure. Studies demonstrate no relationship with breastfeeding or maternal

ingestion of peanuts during pregnancy. However, there is a significant relationship with weeping eczema in infancy and this possibly relates to the application of topical arachis oil. It used to be thought that peanut allergy was lifelong, but we now know that at least 20% of youngsters will outgrow it. This is more likely to happen in children who have no other atopic symptoms. Skin prick tests, or alternatively the specific IgE blood test (formally RAST), may be helpful in confirming this diagnosis (see below).

Peanut allergic individuals at greatest risk of an anaphylactic reaction are those with severe asthma. It is essential that their asthma treatment be optimised.

2 milk and dairy – Although most children will have outgrown milk and dairy allergy by two years of age, some will continue to be troubled well beyond childhood. The exceptional case may continue to demonstrate an acute type 1 reaction, but for the majority, symptoms will be of abdominal pain, vomiting, loose stools, constipation, tiredness and atopic dermatitis.

It is important to recognise that for intolerances the reaction may not be an 'all or none' response. The points below illustrate how various factors may influence the reaction, even in the same individual.

(i) When an individual develops tolerance to a food previously not tolerated, they are likely to have a 'threshold' of intake below which they will not exhibit symptoms, eg a quarter of a pint of milk per day and one portion of yoghurt or cheese. Exceeding this limit will precipitate symptoms. It is important that parents are aware of this. Otherwise parents imagine their child has outgrown the intolerance and feed the child large amounts of the food every day, only to be disappointed that the symptoms have recurred.

(ii) It is well recognised that modification of the food by heat-treating reduces the allergenicity, eg a child with milk intolerance can be expected to tolerate cheese and yoghurt better then raw uncooked milk. Similarly an egg allergic person will tolerate a small amount of cooked egg yolk first, followed a while later by cooked egg white, but it may be several years, if ever, before they are able to tolerate raw egg such as in pavlova or salad dressing.

(iii) A previously dairy allergic child may have grown to tolerate these foods normally, but an episode of gastroenteritis, stress, vigorous exercise or a combination of high allergen foods may cause a relapse. Parents need to be aware of this.

3 wheat – Although less common than milk and dairy, wheat intolerance which is not coeliac disease appears to be on the increase. Symptoms are usually of abdominal pain, distension, and altered bowel habit – either diarrhoea or constipation.

If wheat intolerance is considered as a possible diagnosis it is essential that a coeliac screen be performed before removing wheat from the diet. Failure to do this causes great difficulties in the food clinic as parents are naturally reluctant to put their child back on wheat if exclusion has caused a significant improvement in symptoms. Coeliac disease is an important diagnosis with significant implications which must not be missed. However, once gluten has been removed from the diet of an individual with coeliac disease, then the antibody screen and small intestinal biopsy revert to normal, so the opportunity to make the diagnosis is lost. In untreated wheat intolerance, the coeliac screen is negative, though the IgA Gliadin Ab is not uncommonly positive, and the small intestinal biopsy is normal.

As with milk and dairy, the majority of wheat intolerant children will improve in time. A light white bread is more likely to be tolerated initially than heavy fibre and wholemeal. Weetabix and pasta are noted for causing symptoms.

4 colourants and preservatives – Children are often referred for allergy testing for these, usually said to be causing behavioural problems. To date there is no 'test' for them. There is, however, indisputable evidence that some children (and adults) demonstrate a variety of symptoms after ingestion of certain 'e' numbers, particularly the bright colourants and the sweetener aspartame. There is indisputable evidence that, in some individuals, these can cause hyperactivity, aggressive behaviour or a feeling of being 'spaced out'. A recent paper suggests that these are more likely to be pharmacological reactions rather than allergic. They are equally common in non-atopic and atopic children.

5 NSAIDs – This is being increasingly recognised, probably because of the increasing availability of these preparations, both as antipyretics and topical anti-inflammatory agents. The specific symptoms I have seen to date have been type 1 allergic reactions (see case histories below).

TESTS

In the majority of cases of food allergy and intolerance, no testing is performed. This is either because there is no test available, or the results would be of limited benefit. It is rare for tests to be performed below two years of age as milk, dairy and nuts are known to be responsible for 95% of allergic reactions in this age group, so testing is unlikely to provide additional information.

The gold standard test for food intolerance is the 'double blind food challenge'. However, this is not practical for the majority of foods, and in cases of IgE-mediated reactions may be potentially dangerous. In practice, therefore, the decision to test or not depends on the history of symptoms and the food responsible.

A thorough history of precise events surrounding the reaction is essential. This includes foods ingested at the time, exposure to environmental inhalants, state of heath and medication, exercise and altitude. It is also important to enquire about previous atopic symptoms and family history.

Situations where testing is useful include confirmation, or indeed disproval of nut allergy, chronic severe atopic dermatitis often associated with other type 1 reactions, and inhalant allergy.

For gastrointestinal manifestations of food intolerance, the diagnosis depends on resolution of symptoms on exclusion of the food(s), which is generally recommended to be for six weeks in the first instance. If there is still doubt, then a challenge is appropriate.

Where testing is appropriate, the test most commonly done is the skin prick test (SPT), though the blood measurement of specific IgE will give similar results. SPTs are reliable for IgE-mediated reactions with specificity and sensitivity being 85% to 95%. They are not, however, helpful in the diagnosis of delayed/T cell-mediated reactions.

It is important to remember that a positive result indicates that the person has antigen-specific IgE , but does not prove that exposure to that allergen is responsible for the symptoms

Figure 3 Skin prick tests most commonly performed

in question. This is not a problem where there has been a history of acute facial swelling, and urticaria within seconds of exposure to a particular food, but for symptoms of atopic dermatitis it is important not to blame the symptoms on a specific food on the basis of a mildly positive SPT. In that situation, a period of exclusion of the specific food, followed by challenge, will be more helpful.

SPTs are performed using standardised extracts of specific foods and are undertaken by trained nursing staff on the children's day care unit. A tiny drop of the liquid allergen under test is put onto the forearm, the skin pricked, and the reaction closely monitored over the next twenty minutes. An antihistamine is always available in case of a significant adverse reaction. Adrenalin is also at hand.

A mean wheal diameter surrounding the prick of under 3mm greater than the negative control denotes a negative response. A wheal of over 7mm diameter following peanut, milk or egg denotes a positive reaction. Reactions in between this are questionable.

In practice, if a child is having an SPT for peanuts and there is a negative response, then the child is given an oral challenge with a peanut. The peanut is first rubbed onto the forearm of the skin and observed for 10 minutes. If there is no reaction this is then repeated onto the lip, and again if there is no reaction the child is given a peanut butter sandwich.

From experience it is essential that the oral challenge is done in hospital to confirm to the child and parents that there is no adverse reaction.

MANAGEMENT

The mainstay of management of food allergy is avoidance of the offending foods. Input from an experienced dietician is essential, both to guide the parents, and to ensure that the child receives appropriate nutrition. For IgE-mediated reactions, it is important that the child has a supply of antihistamine medication (usually chlorpheniramine) available at all times, together with written information on possible symptoms of allergic reaction and appropriate management. A school treatment plan, together with the medication, is provided for school.

The majority of cases are managed by allergen avoidance and antihistamine. However, if there has been a previous life-threatening reaction, or the child has severe asthma, then an adrenalin pen is appropriate.

A diagnosis of food allergy or intolerance can sometimes be very frightening for parents. It is important that they are given the appropriate information and support to enable their child to live a normal life, rather than have the food problem dictate the child's lifestyle. In a recent 10-year UK study of the under-16-year-old population, there were eight deaths due to food allergy. Four children died following milk exposure and two following peanuts. Two died in spite of having received adrenalin prior to arrival in hospital, and one died from an overdose of adrenalin following a mild allergic reaction. No child below 13 years of age died from peanut exposure, which is consistent with previous studies.

To put this into perspective, a food allergic child is 50 times more likely to die from an accident or childhood malignancy than from their food allergy.

CASE HISTORIES

Case 1. A 12-year-old boy was referred to outpatients with a history of recurrent swelling of the lips over recent months and now only controlled by daily oral steroids. He had a long history of AD and his skin was actually lichenified. He was admitted to the children's ward and settled very quickly on a 'few foods diet'. As new foods were introduced over ensuing weeks he was found to react only to apples and the majority of colourants. There was concern one morning when he had a recurrence of swelling of the lips and eyes but on closer questioning was found to have been given a single dose of Ibuprofen during the night to control fever and symptoms of an upper respiratory tract infection.

Two years on, he is a healthy boy with virtually clear skin managed only with topical emollients. His only dietary exclusions are apples and all colourants.

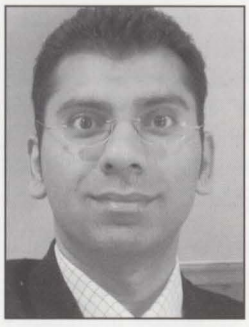
Case 2. This 15-year-old keen sportsman was referred following an acute episode of swelling of his tongue and face associated with acute wheeze. This had occurred following an away match, when returning home on the school bus sucking a brightly-coloured sweet. On further questioning he admitted to regularly applying tubes of NSAID ointment to his knees, because of increasing pain. He had also noticed that he was having to use his ventolin more frequently.

I suggested that the combination of NSAID, vigorous exercise with perhaps some stress, and the colourant in his sweet had precipitated his allergic reaction. He was advised to discontinue the NSAID and has remained symptom-free since, rarely even requiring his ventolin.

NEWS & NOTES

New Appointment

Consultant obstetrician and gynaecologist



Rauf Ghani has been appointed as a consultant obstetrician and gynaecologist at the Royal Lancaster Infirmary, and took up the post in May 2004.

Mr Ghani qualified from Leicester University Medical School in 1994, and had decided on a career in O&G by the end of his undergraduate training.

His postgraduate posts have been at the main teaching hospitals in Leicester, Birmingham and Newcastle, whilst his Specialist Registrar rotation has been in the northwest hospitals.

Mr Ghani has a special interest in advanced laparoscopic and hysteroscopic gynaecological surgery, particularly in the field of minimally invasive surgical treatment of endometriosis. Other clinical interests include outpatient hysteroscopy and colposcopy.

He aims to develop a minimal access gynaecological service at the trust, and as a longterm aim to develop a minimal access surgical training centre at the RLI for training postgraduates interested in this field.

Rauf feels that teaching is an essential role for consultants and is looking forward to expanding his teaching role for both medical students and postgraduates at the RLI.

His leisure interests include photography and gardening and he is currently learning to play the saxophone.

Rauf is married to Sarah, who is a GP. They have one child, Luke, aged 19 months.

Letter to the Editor

Sir:

I was interested to see in the May 2004 issue of the Morecambe Bay Medical Journal the item entitled 'Major Developments 2003' (p209), under the heading of Obstetrics and Gynaecology. The reference to tension-free vaginal tape usage across the bay seems to imply that this became a major development in 2003, and although it did start at the RLI last year, this service has been offered at FGH since 1997.

Yours sincerely

PK Misra
Consultant Obstetrician and Gynaecologist

George Cup result 2004

This year's George Cup Golf Competition was held on Saturday 8th May 2004 at Lancaster Golf Club. As usual, there was a massive turnout with 34 golfers playing.

The competition results are as follows:

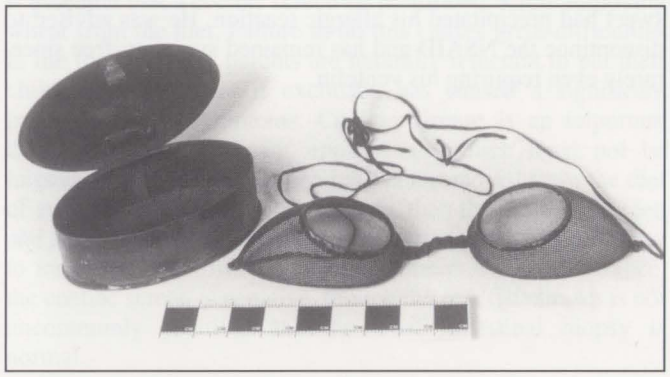
The George Cup	Dr Chris Riley	40 points
	Dr Mark Denver	39 points
	Dr Colin Brown	37 points
The John Wilkie Quaiche	Dr Mike Bird	19 points
The Phil Allen Plate	Mrs Angela Cherry	33 points
The Freend's Silla	Mr Sam Lavelle	45 points

This year's star performance was certainly by 13-year-old Sam Lavelle, whose round included a hole-in-one at the 13th!

It is hoped to stage next year's competition at Morecambe Golf Club. Details will be released once dates are confirmed.

Andrew Whitton
Golf Secretary

QUID EST HOC?



These are eye shields which were worn after a cataract operation. They are made of glass and black wire mesh and have a soft flexible bridge. They fold inside each other and can be carried in the small black painted oval metal box shown on the left of the photograph.

MBMJ

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