Management of growth delay in patients aged less than 6 years

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The BEACH program, a continuous national study of general practice activity in Australia, gives us an overview of consultations in general practice involving the management of growth delay. 'Growth delay' encompasses physical problems such as 'failure to thrive' and 'delayed physical development' in infants and children. Over 80% of encounters at which growth delay was managed were with patients aged less than 6 years, so we have concentrated our analysis on this early childhood group. This provides a backdrop against which articles in this issue of *Australian Family Physician* can be further considered.

Management of growth delay

From 1998 to 2004, there were 51 417 BEACH encounters with children aged less than 6 years, and growth delay was managed at 137 of them. This is 0.3% of all encounters with this age group (*Figure 1*). General practitioners who managed growth delay were more likely to be female than the average for BEACH (46.7% compared with 27.6%). They were also younger than average, with only 14% of GPs in the 55 years and over age group (compared with 30% in the total data).

The patients

'The patients' in *Figure 1* shows percentages and specific rates for each variable. For instance, 56.3% of patients managed for growth delay were boys, and growth delay was managed at a rate of 0.3 per 100 encounters with boys in the under 6 years age group. The specific rate for girls was 0.2.

Infants aged less than 1 year made up the greatest proportion of children managed for growth delay (43.8%), and those aged 1 year accounted for another 24.8%. In age specific terms, the problem was managed at a slightly higher rate for patients aged less than 2 years than for patients aged 2 years or over.

There were 18.8% of patients from a non-English speaking background, and they were twice as likely to be managed for growth delay as the total group (0.6 compared with 0.3 per 100 encounters). Aboriginal and/or Torres Strait Islander infants and children under 6 years of age made up 12.4% of the patients managed for growth delay; a rate of 1.4 per 100 encounters. This was almost five times the average rate for the group.

Patient reasons for encounter

Of the 214 reasons for encounter (RFE) given by the patient or their carer, 60 were for growth delay, a rate of 43.8 per 100 'growth delay encounters'. Immunisation and cough were the next most common RFE at rates of 10.2 and 7.3 per 100 encounters respectively.

Other problems managed

The low rate of other problems managed at growth delay encounters (68 per 100 encounters) reflected the young age of the patients. A total of 93 other problems were recorded at these encounters. Immunisation was the most common, at 11.7 per 100 encounters, followed by acute upper respiratory tract infection (11 per 100).

Medications

Only 13 medications were prescribed, supplied or advised for growth delay. The anti-infective group, which includes anthelmintics, were recorded three times, as was vitamin A/betacarotene. Ferrous gluconate was recorded twice.

Other treatments

Other treatments were more common. They were provided at a rate of 39.4 per 100 growth delay problems, and were most often observation/health education/advice (26.3 per 100) or therapeutic counselling/listening (8.8 per 100 problems).

Referrals

The national average referral rate in BEACH is 8 per 100 problems managed. For growth delay in children aged less than 6 years the rate was much higher; 39.4 per 100 problems. Of the 54 referrals given for growth delay, 39 (72%) were to paediatricians and four patients were referred to hospital.

Investigations

There were 36 pathology tests ordered for growth delay, a rate of 26.3 per 100 problems managed, similar to the national average. Full blood count, urine M&C test, and liver function tests were the most common. Imaging tests for growth delay were rare. Only two were ordered, a chest X-ray and a hip X-ray.

Conflict of interest: none.

AFP

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Reasons for encounter
(n=214, 156 per 100 encounters)

	Rate per 100 growth delay encounters
Growth delay	28.0
Immunisation	6.5
Cough	4.7
Endocrine check up*	4.2
Metabolic symptom	4.2
General check up*	3.7
URTI acute	3.3
Diarrhoea	2.8
Feeding problem infant/child	2.8
Irritable infant	2.3

The patients (n=137)

Sex	%	Rate[a]
Males	56.3%	0.29
Females	43.7%	0.24
Age		
<1 year	43.8%	0.34
1 year	24.8%	0.33
2 years	8.8%	0.17
3 years	7.3%	0.17
4 years	8.0%	0.18
5 years	7.3%	0.19
NESB	18.8%	0.60
Aboriginal and/ or Torres Strait Islander	12.4%	1.37

Referrals (n=54, 39 per 100 growth delay problems)

	Rate[b]
Paediatrician	28.5
Hospital	2.9

Pathology tests (n=36, 26 per 100 growth delay problems)

	Rate[b]
Full blood count	5.8
Urine M&C	5.1
Liver function	3.7

Growth delay/failure to thrive
(n=137, 0.26 per 100 encounters)

Other problems managed
(n=93, 68 per 100 growth delay encounters)

	Rate per 100 growth delay encounters
Immunisation*	11.7
URTI, acute	11.0
Otitis media acute	6.5
Bronchitis/bronchiolitis acute	5.4
Infectious conjunctivitis	3.2
Asthma	3.2
Diarrhoea	2.2
Mouth/tongue/lip disease	2.2
Oesophagus disease	2.2
General check up*	2.2

(a) Rate per 100 encounters in each specific group
(b) Expressed as a rate per 100 growth delay problems managed
* Includes multiple ICPC-2 and ICPC-2 PLUS codes
NESB = non-English speaking background
URTI = upper respiratory tract infection

Medications (n=13, 9 per 100 growth delay problems)

	Rate[b]
Anti-infective/anthelmintic	2.2
Vitamin A/betacarotene	2.2
Ferrous gluconate	1.5

Other treatments (n=54, 39 per 100 growth delay problems)

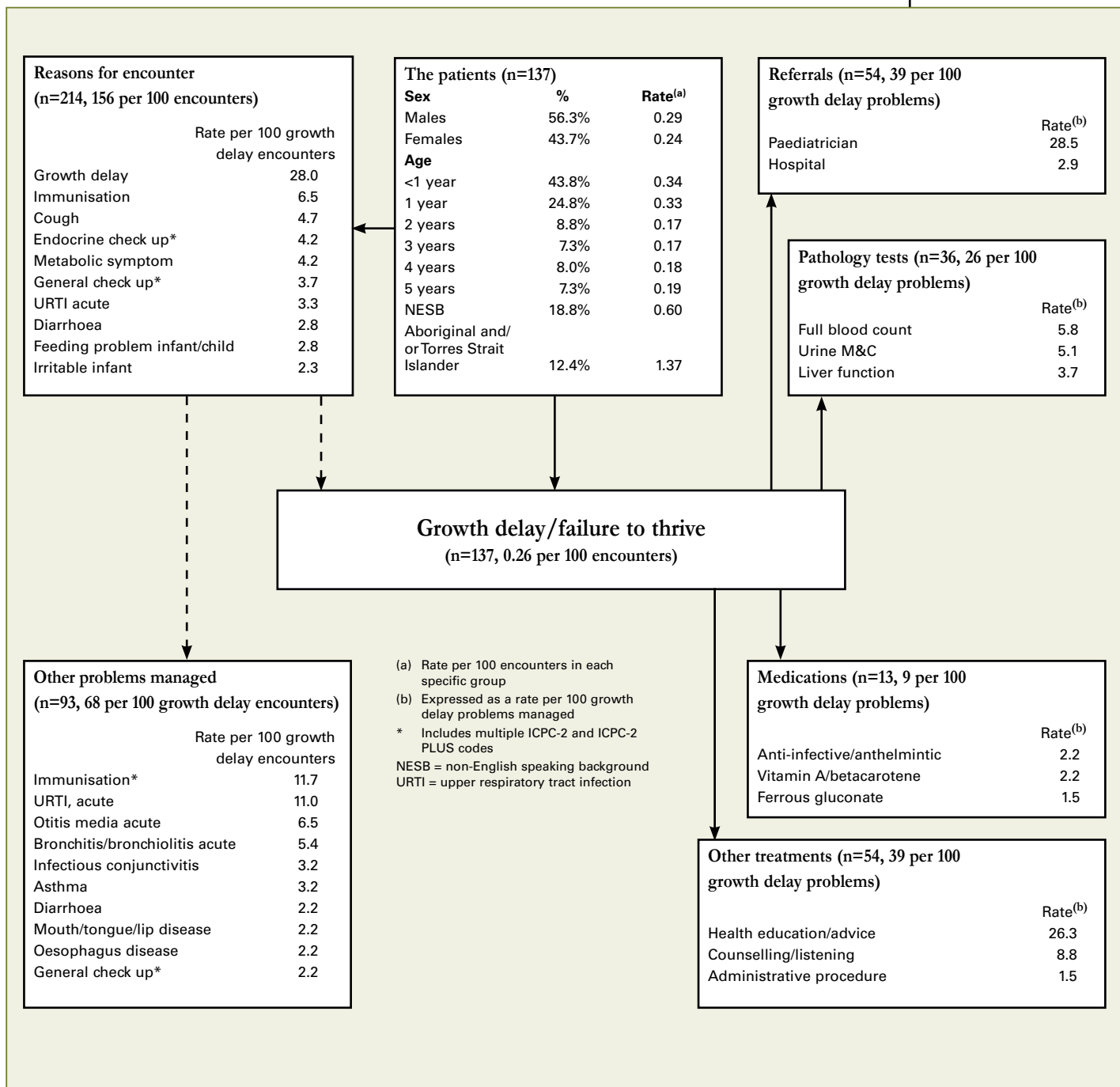|	Rate[b]
Health education/advice	26.3
Counselling/listening	8.8
Administrative procedure	1.5

Figure 1. Content of encounters at which growth delay was a problem managed