THEME

Genetics in general practice



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Management of haemachromatosis in general practice

The BEACH program, a continuous national study of general practice activity in Australia, gives us an overview of general practice consultations where the genetic disorder haemachromatosis was managed. This provides a backdrop against which articles in this issue of *Australian Family Physician* can be further considered.

Between April 2002 and March 2007, there were 439 consultations where haemachromatosis was managed, occurring at about one in 1000 encounters. This suggests that GPs manage haemachromatosis on almost 100 000 occasions nationally each year.

Gender and age of patient

Males made up 60% of patients managed for haemachromatosis, a significantly higher proportion than at total BEACH encounters (44%). Encounters with males were twice as likely to involve management for haemachromatosis (1.3 per 1000 encounters) as encounters with females (0.6 per 1000).

Fifty percent of patients with haemochromatosis were aged 45–64 years, almost double the proportion of patients in that age group at total BEACH encounters (27%). The age specific management rate of 0.16 per 100 encounters with patients aged 45–64 years was higher than for any other age group.

Reasons for encounter

A need for test results (23.7 per 100 haemachromatosis encounters), for venesection (19.1 per 100) and for blood tests (7.1 per 100) were among the most common reasons recorded.

Other problems managed

Circulatory problems were the most commonly managed comorbidity, at a rate of 18 per 100 of haemochromatosis encounters, followed by musculoskeletal problems, managed at 11 per 100. Individually, hypertension was the most common other problem managed, at a rate of 13 per 100 haemachromatosis encounters, significantly higher than the average rate for BEACH (9 per 100).

Medications

There were only nine medications prescribed, advised over-the-counter or supplied by the general practitioner, at the very low rate of 2 per 100 haemachromatosis problems managed. Three nonsteroid anti-inflammatory drugs, three analgesics and three other medications were recorded for the management of this condition.

Other treatments

Other treatments included clinical and procedural treatments. The rate of other treatments provided, 41 per 100 haemachromatosis problems managed, was significantly higher than the average for BEACH (30 per 100 problems). Clinical treatments, most commonly advice/education/counselling, were recorded for 18 per 100 haemachromatosis problems. Procedures were recorded for 23 per 100 haemachromatosis problems, double the average rate found in BEACH. Venesection accounted for 98% of all procedures undertaken at haemachromatosis encounters.

Referrals

Referrals were provided for 1 in 10 haemachromatosis problems (similar to the average for BEACH), most frequently to haematologists (5 per 100 haemachromatosis problems managed).

Tests ordered

Pathology tests were ordered at four times the average for BEACH (114 per 100 haemachromatosis problems compared with 26 per 100 total BEACH problems managed). Ferritin tests were ordered at a rate of 47 per 100, and full blood counts at a rate of 24 per 100 haemachromatosis problems managed.

Conflict of interest: none.

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The patients Reasons for encounter (n=439) (n=782, 178 per 100 haemachromatosis encounters [HE]) Rate^(a) Gender Percent Rate per 100 HE^{b)} Male 59.9 0.13 Test results* 23.7 Female 40.1 0.06 Endocrine/metabolic disease, other 20.5 Age group Venesection 19.1 <25 3.5 0.02 9.1 Prescription all* 25-44 23.3 0.09 Blood test unspecified 7.1 50.1 45-64 0.16 Cardiac check up* 5.9 65–74 15.5 0.11 Weakness/tiredness 5.2 75+ 7.6 0.05 Female genital check up 3.6 Haemachromatosis Test blood/lymph 3.0 (n=439, 0.1 per 100 patient General check up* 3.0 encounters) Other problems managed Referrals (n=463, 105 per 100 HE) (n=44, 10 per 100 haemachromatosis problems [HP]) Rate per 100 HE^(b) Rate per 100 HP^(c) Hypertension* 13.0 Haematologist 5.5 Depression* 3.6 Gastroenterologist 3.0 Lipid disorders* 3.6 Female genital check up* 3.4 Immunisation/vaccination 3.4 Pathology Solar keratosis/sunburn 2.5 (n=504, 114 per 100 HP) Osteoarthritis 2.1 Rate per 100 HP^(c) Abnormal test results* 2.1 Ferritin 47.2 Prescription all* 1.8 Weakness/tiredness Full blood count 23.9 1.6 Other test NEC 12.1 Liver function test 8.7 Other treatments (n=180, 41 per 100 HP) Imaging Rate per 100 HP^(c) (n=12, 3 per 100 HP) Venesection 22.3 Rate per 100 HP^(c) Counselling problem* 7.7 Ultrasound abdomen 0.7 Advice/education* 4.8 Ultrasound liver 0.7

(a) Specific rate per 100 encounters in each gender and age group

(b) Expressed as a rate per 100 encounters at which haemachromatosis was managed

(c) Expressed as a rate per 100 haemachromatosis problems managed

* Includes multiple ICPC-2 and ICPC-2 PLUS codes

NEC = not elsewhere classified

Figure 1. Content of encounters at which haemachromatosis was managed