SHORT REPORT

Audit of pre-placement assessments undertaken in an NHS Trust

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Introduction

A high percentage of potential employees are passed fit for work despite undergoing pre-placement health assessments. Few studies have evaluated the cost effectiveness of such assessments. The aim of this study was to audit the outcome of National Health Service (NHS) pre-placement health assessments and estimate the manpower costs of undertaking them at an NHS Trust.

Methods

An audit of the outcome of NHS pre-placement assessments at an NHS Trust between 1 April 2005 and 31 March 2006 was undertaken using an electronic database. The cost of undertaking the assessments was also calculated based on manpower hours spent per year.

Results

A total of 2973 pre-placement assessments were undertaken during the 12-month period. Of the employees, 98.5% were passed fit without comment, 1.5% were passed ‘fit with comments’ on the fit slip and no potential employee was found unfit for NHS work. Ten diagnostic categories contributed to a fit with comments result. The manpower cost to this trust per year to process the 2973 NHS assessments was estimated to be approximately £13 502.

Conclusion

Given the annual financial costs incurred and the high percentage of employees passed fit for work, alternative pre-placement health assessment methods could be considered. The method should ensure, however, that the ability to detect a wide range of medical conditions at the pre-placement stage still exists.

Key words

Fitness outcome; manpower costs; NHS Trust; pre-placement health assessments.

Introduction

Previous studies have tried to evaluate the effectiveness of pre-placement assessments [1–7]. In 1989, a retrospective study of National Health Service (NHS) pre-placement assessments found no one unfit for employment, with an annual cost to the department of £2360 [6]. A study undertaken in 2006 evaluated trust nursing and clerical costs of undertaking pre-employment health screening for both NHS and non-NHS employees [7].

The aim of this audit was to determine fitness outcome of NHS pre-placement assessments and to identify factors associated with ‘fit with comments’ (fit Grade 2) assessments. The manpower cost of performing pre-placement assessments was also estimated.

Methods

An audit of the number of NHS pre-placement assessments undertaken, for both new and existing employees, between 1 April 2005 and 31 March 2006 was performed at an NHS Trust’s occupational health (OH) department. The audit included staff from the acute NHS Trust, primary care and mental health trusts.

Details of the number of pre-placement assessments undertaken and the method and results of the assessments were stored on an electronic database. The results were analysed and classed as fit Grades 1–3. Grade 1 was ‘fit with no comments’, Grade 2 was fit with comments, such as mention of the Disability Discrimination Act (DDA) 1995 or restrictions/adjustments required and Grade 3 was ‘unfit for the post’.

The medical conditions determining a fit Grade 2 or 3 assessment and the comments on the fit slips were further analysed. A paper search of the pre-placement assessment forms was undertaken to identify the medical conditions. The comments were accessed from free text entries in the database.

Clerical staff date stamped pre-placement assessment questionnaires received by post and inputted the data on the database. The forms were passed to OH nurses for paper screening. Clerical staff sent a letter to individuals, if a nurse needed to clarify any medical details by
telephone. If the nurse still had cause for concern, the individual was given an appointment to see an occupational physician.

To calculate the manpower cost of undertaking pre-placement assessments, time taken for staff to process the forms was estimated. Occupational physicians spent 30 min on average consulting with a potential employee. Fifteen minutes were added for each assessment to account for paper work and telephone calls made by the physicians. OH nurses spent ~10 min per assessment, as some assessments took a few minutes to screen while more complex cases dealt with by telephone could take significantly longer. Clerical staff took 5 min on average to deal with each pre-placement form.

Two consultant occupational physicians, seven specialist OH nurses and five members of the clerical team processed pre-placement questionnaires at the trust. The finance department provided the salary costs per hour for the respective nursing and clerical staff. The average cost per hour for both nursing and clerical staff was calculated as the cost ranges were narrow. The costs per hour for consultants on the minimum and maximum pay scale were provided and the average value was taken.

Results
A total of 2973 NHS pre-placement assessments were performed by both OH nurses and physicians at an NHS Trust during a 12-month period. A total of 2928 employees were passed ‘fit Grade 1’ (98.5%), 45 were passed fit Grade 2 (1.5%), while no potential employee was found unfit for NHS work (Table 1).

Analysis of the 45 employees with a fit Grade 2 result showed 55 medical conditions, with 10 employees declaring more than one medical condition on their pre-placement form. The diagnostic categories for each medical condition determining a fit Grade 2 result are shown in Table 2, with musculoskeletal (33%), psychiatric (22%) and endocrine (11%) conditions being the most common.

Fifty comments were written on the Grade 2 forms, as five employees had more than one comment documented. Of 2973 assessments, work restrictions were advised in 15 (0.5%) cases; OH follow-up was advised in 12 (0.4%) cases; significant past or anticipated future sickness absence detailed in 7 (0.2%) cases; 6 (0.2%) cases were considered to be likely covered by DDA 1995; work adjustments were advised in 5 (0.2%) cases; miscellaneous comments were recorded in 3 (0.1%) cases and an ongoing medical problem was recorded in 2 (0.06%) cases.

Latex allergy was the most frequent condition requiring a work restriction (five individuals). The medical conditions requiring comments about the DDA 1995 were epilepsy, insulin-dependent diabetes mellitus, inflammatory bowel disease, back pain, learning difficulties and an amputated leg.

A total of 2949 individuals were passed fit either by questionnaire alone or by telephone consultation. An additional 24 (0.8%) were referred to an occupational physician but had previously been screened by an OH nurse. The estimated time spent by OH nurses at 10 min per assessment was 495 h. At the average nursing cost of £21/h, the total nursing costs to process 2973 pre-placement assessments were estimated at £10 395.

The time taken for clerical staff to process 2973 forms at 5 min per form was 248 h. At the average clerical staff cost of £8.90/h, the total clerical staff costs were estimated at £2207.

At 45 min per assessment, it took occupational physicians 18 h to assess the 24 pre-placement assessments. At an average cost per hour of £50, the total physician costs were estimated at £900.

The total manpower cost of undertaking NHS pre-placement assessments in the year audited was estimated at £13 502.

<table>
<thead>
<tr>
<th>Medical specialties</th>
<th>( N ) (%)</th>
</tr>
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<tbody>
<tr>
<td>Musculoskeletal</td>
<td>18 (33%)</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>12 (22%)</td>
</tr>
<tr>
<td>Endocrine</td>
<td>6 (11%)</td>
</tr>
<tr>
<td>Dermatological</td>
<td>5 (9%)</td>
</tr>
<tr>
<td>Neurological</td>
<td>5 (9%)</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>4 (7%)</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>Respiratory</td>
<td>1 (&lt;2%)</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>1 (&lt;2%)</td>
</tr>
<tr>
<td>Haematological</td>
<td>1 (&lt;2%)</td>
</tr>
</tbody>
</table>

\( N \) and \% = number and percentage of employees reporting a health problem in different specialties (out of 55 as 10 employees declared more than one condition).
Discussion

The percentage of individuals passed fit, fit with restrictions and unfit for work in this study (98.5, 1.5 and 0%) agrees with findings in the Whittaker and Aw NHS study (98, 1.3 and 0.7%) [2]. The estimated sum of £13 502 to perform 2973 NHS pre-placement assessments, compares relatively closely to £24 000–£30 000, the nursing and clerical costs estimated by another NHS Trust in 2006 for performing ~6500 NHS and non-NHS pre-placement assessments [7].

Manpower costs will understandably be an underestimate, as performing pre-placement assessments also includes overhead costs such as staff recruitment and miscellaneous costs such as obtaining reports from general practitioners, telephone calls and materials. An estimate of the total cost of performing pre-placement assessments would need to take account of the above factors. Recruitment costs for this study were not calculated as OH staff were not recruited solely for the purpose of performing pre-placement assessments. The additional cost of reports from general practitioners was not included in the cost calculation, but such reports were generally only requested either by OH physicians and/or for fit Grade 2 cases (1.5%).

The cost of £13 502 per annum can therefore be considered the minimum cost of performing 2973 pre-placement assessments at the trust. Given the financial costs incurred and the high percentage of individuals passed fit for work without requiring recommendations, alternative models of performing pre-placement assessments could be considered. Ten diagnostic categories, however, contributed to the 45 individuals with a fit Grade 2 result and a variety of conditions were considered to fall under the remit of the DDA 1995. Results of this audit demonstrate, therefore, that although an alternative screening process could be designed, the method should ensure that the ability to detect a wide range of medical conditions at the pre-placement stage still exists.

Key points

- A high proportion (98.5%) of employees were passed ‘fit without comments’ and no potential employee was found unfit for NHS work.
- The manpower cost to this trust per year to process the 2973 NHS assessments was estimated to be approximately £13 502. Given the annual financial costs incurred and the high percentage of employees passed fit for work, alternative pre-placement health assessment methods could be considered. The method should ensure, however, that the ability to detect a wide range of medical conditions at the pre-placement stage still exists.

Conflicts of interest

None declared.

References