ABSTRACT
An audit was carried out on a cohort of Territorial Army (TA) personnel passing through RTMC in order to assess the quality of their previous medical assessments compared to that undertaken at the time of their mobilisation. The results confirmed the high downgrading rate (18%) amongst TA personnel compared to previous studies that identified grading error rates of 6-6.5% amongst Regular Army personnel. Errors in the entry medical assessments for TA personnel were also identified in nearly half (44%) of records examined. Possible solutions are identified through improved education of examining medical officers and by increasing the pre-deployment time available to obtain specialist referrals. A case is also made for having improved access to previous medical information, both to improve the quality of the pre-deployment medical screening and to ensure appropriate continuity of care for deployed TA personnel.

Background
The use of reserve forces on military operations has progressively increased since the Gulf War to the current day where Territorial Army (TA) and Regular Reserve personnel are deployed in a number of operational theatres. Currently TA and Reserve personnel make up 9-10% of British Army personnel in Bosnia and Kosovo.

The Reserve Forces Act 1996 provided the framework for limited call-up outside general war, enabling TA and Reserve personnel to be mobilised through Temporary Mobilisation Centres. However, these centres were only established for deployment purposes and no provision was made for ongoing personnel administration. Particular concerns were expressed over the medical aspects of force preparation and continued care of medically evacuated personnel. In order to address these issues the Reserves Training and Mobilisation Centre (RTMC) was established in April 1999, with the aim of improving and standardising the mobilisation process for TA and Regular Reservist personnel. By January 2002 over 3000 TA and reserve personnel had been mobilised for operational deployments, with a further 456 personnel being assessed for Full Time Reserve Service (FTRS) engagements.

The normal mobilisation process at RTMC lasts two weeks. The initial administration period includes medical and dental examinations, applying current published Army standards (1,2). A standardised operational training programme is then undertaken, based on the requirements of the Individual Training Directives (Army), which is then followed by a ‘special to theatre’ training package. The FTRS engagement process is similar except that the medical and dental examinations are carried out 4-6 weeks prior to the training course.

The medical procedure provides confirmation of the PULHHEEMS medical grade of all deploying and FTRS personnel and checks that they are medically fit for their role. Initially the medical documents are reviewed by the Senior Medical Officer (SMO), who highlights any potential problems. Clinical measurements are then carried out by Combat Medical Technicians prior to a full examination being carried out by one of the sessional doctors. Finally the completed medical documentation is reviewed by the SMO to confirm that the PULHHEEMS system criteria have been applied correctly. When the examination or medical review uncovers a discrepancy the individual is temporarily medically re-graded by means of a locally convened One Member Medical Board and, where necessary, referred for a specialist opinion. For those cases requiring a permanent alteration to their medical grade, a Two Member or Full Medical Board is initiated as appropriate.

Shortly after RTMC was established it became apparent that the number of personnel being downgraded during the mobilisation process was larger than had been expected. However, it was unclear whether the high rate of downgrading at RTMC was due to poor medical enlistment procedures, the failure of detection of medical conditions, non-disclosure of existing medical problems, or poor administrative procedures. Therefore, an audit was planned to review both the clinical and administrative accuracy of the initial TA medical examinations and the currency and accuracy of the most recently recorded TA medical assessments compared to the findings of the RTMC medical examination.
Methodology

A retrospective audit was carried out of the documents contained in the medical folder (FMed 4) for all TA personnel presenting during two busy routine mobilisation periods in August and September 2001. The FMed 4 was examined to confirm that an Initial Medical Examination, including PULHHEEMS grading and PULHHEEMS Employment Standard (PES), had been recorded on joining the TA or, for ex-Regular Army personnel, that a release medical examination had been recorded within 6 months prior to transfer into TA, as defined in the PULHHEEMS Administrative Pamphlet (1) and the Joint Service Publication 346 (2). The supporting clinical documentation (FMed 1 and FMed 2) was also checked for completeness and accuracy.

The most recently recorded medical information was then examined to confirm whether the individuals were ‘in-date’ for their routine in-service medical examinations and whether the last PULHHEEMS grade and PES had been assigned and recorded correctly. These data were then compared with the medical examination findings from the pre-mobilisation or FTRS assessment that had been conducted at RTMC. The criteria applied for incorrect medical gradings are shown in Table 1.

The observations were then recorded on a Microsoft Excel spreadsheet for analysis, with 20% of the records being checked to confirm accuracy of data transfer.

Results

Medical documents were examined for 209 personnel, 90 (43%) of which were for personnel mobilising and 119 (57%) for FTRS engagements. One hundred and eighty two participants (87%) were males and 27 (13%) female. The age range was 19-59 years, (Male = 18 – 58, median = 35yrs. Female = 21 – 53, median = 31yrs) and length of service varied from 1 – 31 yrs (Male = 1 – 31yrs, Female = 1 – 21yrs).

TA Entry Medical Examination

When examining the initial TA medical documents, significant deficits of clinical information in the FMed 1 or FMed 2 were identified in 92 cases (44%) and in a further 19 cases (9%) no supporting clinical documentation was present. Yet for all but one individual from the whole group, a PULHHEEMS and PES entry had been made on the FMed 4. The initial gradings are summarised in Table 2. Having reviewed the clinical data that had been recorded, 35 (16%) of the initial PULHHEEMS gradings were considered to be incorrect, when assessed against current guidelines (1, 2). Further examination of these 35 cases revealed that 13 had medical conditions recorded that should have placed them below the entry standard for the Army. Examples included significant hearing loss, asthma and previous splenectomy.

Presenting Medical Standards

At presentation 207 personnel (99%) were recorded as being fit (PES = ‘Forward Everywhere (FE)’) and two personnel had a restricted PES of ‘Lines of Communication Everywhere (LE)’. However, when the documented grades were compared to that assigned at RTMC a significant number of discrepancies were identified.

The most recent PULHHEEMS gradings for 52 personnel (25%) were deemed to be incorrect for administrative or clinical reasons. Of those who had presented with a PES of ‘FE’, 37 (18%) were ultimately down-
Table 3. RTMC Medical Examination Outcome

<table>
<thead>
<tr>
<th>PES Awarded</th>
<th>Mobilised Service</th>
<th>FTRS</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>FE 74</td>
<td>98 (82.4%)</td>
<td>172 (82.3%)</td>
<td></td>
</tr>
<tr>
<td>LE 12</td>
<td>16 (13.4%)</td>
<td>28 (13.4%)</td>
<td></td>
</tr>
<tr>
<td>HO 4</td>
<td>4 (3.4%)</td>
<td>8 (3.8%)</td>
<td></td>
</tr>
<tr>
<td>‘Nil’ – Unfit for service 0</td>
<td>1 (0.8%)</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Totals 90</td>
<td>119</td>
<td>209</td>
<td></td>
</tr>
</tbody>
</table>

Discussion

The data examined supports the fact that a significant number (25%) of TA personnel present for mobilisation or FTRS with incorrect medical gradings. Both the clinical and administrative errors reflect a poor understanding of the PULHHEEMS grading system, with medical conditions being recorded without appropriate medical board action being initiated. The use of obsolete PES and PULHHEEMS grades or simply leaving documentation blank further compounded these errors.

Whilst some of the previously recorded conditions had resolved by the time of presentation at RTMC, the downgrading rate of 18% highlights a marked discrepancy between the recorded and actual PULHHEEMS grades for TA personnel. This is considerably higher than the error rate of 6.5% previously identified in the recorded PULHHEEMS status for Regular Army personnel (3) and the 6% error rate identified in PULHHEEMS grades following entry medical examinations for Regular Army recruits (4).

Examination of the initial medical documentation identified a similar error rate to that identified at RTMC. However the initial examination figures are likely to be an underestimate of the true error rate because of the lack of clinical information available in just under half (44%) of the medical documents. This meant that the PULHHEEMS grade on the front of the FMed 4 had to be assumed to be correct without corroborating evidence on the FMed 1 or FMed 2. It is also of note that within the initial medical documents 13 cases were identified where the examining doctors had recorded medical conditions that should have precluded entry but then failed to apply the entry medical standards correctly.

Despite the errors shown at the time of entry into the TA, the data demonstrated that most personnel (91%) were ‘in-date’ for their routine medical examinations when they presented to RTMC. Many personnel were having medical examinations at a very high frequency, with annual PULHHEEMS examinations often being recorded. Unfortunately the frequency of the examinations did not guarantee that an appropriate medical grading would be awarded, as most of the conditions that resulted in downgrading at RTMC were chronic and had been present at the previous medical examination.

Both the incorrect frequency of routine PULHHEEMS reviews and the lack of medical re-grading action highlight a lack of understanding of the PULHHEEMS grading system amongst medical staff undertaking TA medical examinations. Whilst this can be resolved in time by improved medical staff training, there are significant implications for current mobilisation planning, as it is likely that at least 18% of TA personnel presenting will not be medically fit for unrestricted operational deployment.

There are also resource implications to consider, as a significant number of the temporarily downgraded personnel require a hospital specialist review, within the limited time available (less than two weeks) during the mobilisation process.

Despite using the Defence Secondary Care Agency priority referral system, private referrals are often required in order to obtain an opinion within the deployment time scale. Whilst this can be achieved, at a cost, for current mobilisation rates it would not be feasible for large scale mobilisations.

The difficulty in obtaining rapid specialist
opinions has been addressed for FTRS personnel who undergo their RTMC medical screening several weeks before commencing their engagement. This enables referrals to be made through normal Defence Medical Service channels and medical grading issues to be resolved prior to the offer of an FTRS engagement being confirmed. At present a similar system is not available for TA personnel being mobilised to operational theatres. For a number of temporarily downgraded TA personnel, the difficulty in assigning an appropriate medical grade could be resolved with improved access to previous medical information. At present RTMC medical staff only have access to an individual’s FMed 4, though for TA personnel this usually contains minimal primary care information as this service is routinely provided by their civilian GPs. A self-completed health questionnaire is also completed on arrival at RTMC, though non-declaration of health problems remains a frequent problem. When potential problems are identified an individual’s GP has to be approached, with the patient’s consent, for further information. However, there are often difficulties in obtaining information within the limited pre-deployment timeframe. This delay could be removed if all deploying personnel were to present at RTMC with a summary of their previous medical history from their GP, either as a targeted questionnaire, a general questionnaire or a computerised note summary. Whilst it is accepted that it is inappropriate to automatically require access to primary care records for routine occupational health screening or selection purposes, there are a number of considerations that justify the provision of such information here. Prior to deployment it is important to consider all the medical factors, including primary care issues, that could impact on the operational effectiveness. Additionally, in order to ensure appropriate continuity of care in the operational theatre the primary care information should be available to medical staff. The issue of ensuring continuity of primary care is also of relevance to FTRS personnel, as the receiving unit’s medical staff currently have no access to an individual’s previous medical history.

Conclusions
This review has identified a high medical grading error rate amongst TA personnel presenting for deployment and FTRS at RTMC. The problem has been shown to start at the time of the initial medical examinations on joining the TA, where 16% of the PULHHEEMS grading and PES were incorrect and 44% of medical documentation contained significant errors or omissions of information. On examining the in-service medical gradings it was identified that approximately 25% of TA personnel had been incorrectly assessed at their most recent review, with 18% requiring downgrading on presentation to RTMC. Clinical conditions were frequently recorded, though medical re-grading action was not taken. This study highlights the need for a system of training for medical staff undertaking PULHHEEMS examinations for the TA. It also identifies the need for adequate time for specialist referrals prior to deployment and highlights the requirement to obtain background medical information in order to fully inform the medical screening process and provide adequate information for the ongoing provision of medical care during mobilised service and FTRS engagements. Until these issues are addressed mobilisation planning for TA personnel will need to account for a medical downgrading rate of at least 18% amongst those presenting for deployment.

References
2. Joint Services Publication 346. PULHHEEMS A Joint System of Medical Classification.
An Audit Of Territorial Army Medical Grades On Presentation For Mobilisation And Full Time Reserve Service At RTMC Chilwell
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