CLINICAL PRACTICE GUIDELINE FOR
POST-DEPLOYMENT HEALTH
EVALUATION AND MANAGEMENT

VERSION 1.2
SEPTEMBER 2000/
UPDATE DECEMBER 2001

Department of Defense
Veterans Health Administration
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In response to potential health concerns among Gulf War veterans, the Department of Veterans Health Affairs (VHA) initiated the Gulf War Health Examination Registry (PGR) on November 4, 1992. The PGR offers to every Gulf War veteran a complete physical examination and basic laboratory studies with referral to the Uniform Case Assessment Protocol (UCAP) for specialty consultation if a diagnosis is not made. Additionally, a complete medical history is obtained and documented in the veteran's medical record. The Department of Defense (DoD) initiated a similar program, the Comprehensive Clinical Evaluation Program (CCEP), on June 7, 1994. The CCEP expanded upon routine medical care of Gulf War veterans and provided a more systematic evaluation strategy modeled after the VHA PGR.

The DoD and VHA asked the Institute of Medicine (IOM) to evaluate the adequacy of the current clinical evaluation programs for veterans of the Gulf War, since both evaluation programs have evolved over time. The IOM Committees evaluating the adequacy of the PGR, UCAP, and CCEP endorsed the systematic, comprehensive set of clinical practice guidelines (CPGs) set forth in these diagnostic programs. In their report, *Adequacy of the Comprehensive Clinical Evaluation Program: A Focused Assessment*, the IOM Committee concluded, “The CCEP is a comprehensive effort to address the clinical needs of the thousands of active duty personnel who served in the Gulf War” (IOM, 1997). The CCEP and PGR have assisted clinicians in determining specific diagnoses for thousands of patients. However, the IOM emphasized the need to focus evaluation and care of deployed forces at the primary care-level, both to enhance the continuity of care and foster the establishment of ongoing therapeutic relationships. In the report, *Adequacy of the VA Persian Gulf Registry and Uniform Case Assessment Protocol*, the IOM further recommended “…to the extent possible, use an evidence-based approach to develop and continuously reevaluate clinical practice guidelines for the most common presenting symptoms and the difficult-to-diagnose, ill-defined, or medically unexplained conditions…” (IOM, 1998). Since research studies indicate a high prevalence of psychosocial problems among deployed forces, the IOM recommended that standardized guidelines address the need for screening, assessing, evaluating, and treating this population. The IOM clearly stated that “the goal of implementing a uniform approach to the diagnosis of … veterans’ health problems is admirable and should be encouraged” (IOM, 1998). The IOM recommendations are based on research findings, lessons learned through PGR and CCEP implementation, and advances made in the field of clinical practice evaluation.

Based on the experiences encountered after the Vietnam and Gulf Wars, the IOM emphasized that the post-deployment period is a crucial time for carrying out medical evaluations and providing appropriate care for returning service members. In addition, DoD and VHA clinicians have identified the need for standardized guidelines for assessing, evaluating, and treating returning service members who may have deployment related health concerns. Providing post-deployment medical care in the absence of service connection provides a valuable opportunity to ascertain the health needs of this population, including those with medically unexplained symptoms. Rather than naming a special deployment-specific registry, the IOM concluded that veterans should receive evaluation and care as needed, with evaluation, follow-up, and patient management focused in the primary care setting. The IOM’s recommendations serve as the basis for the *Clinical Practice Guideline For Post-Deployment Health Evaluation and Management* and other supporting management CPGs.

REFERENCES

Deployment of forces in hostile or unfamiliar environments is inherently risky. The changing missions and increasing use of U.S. forces around the globe in operations other than war call for greater attention to threats of non-battle-related health problems—including infections, pathogen- and vector-borne diseases, exposure to toxicants, and psychological and physical stress—all of which must be avoided or treated differently from battle casualties (IOM, 2000). The health consequences of physical and psychological stress, by themselves or through interaction with other threats, are also increasingly recognized.

Although symptoms and health concerns after a deployment may be indistinguishable from those reported in routine primary health care settings, deployment presents unique and often difficult challenges for military members, veterans, and their families. The military members may experience physical or psychological trauma resulting from a variety of factors, such as combat, environmental extremes, illness or infectious disease, injury, weapons of mass destruction, and potential environmental threats. Deployment may create or exacerbate existing family problems and strain already fragile family relationships and coping mechanisms.

The DoD and VHA have expended a great deal of time and effort since the Gulf War in developing and implementing diagnostic programs for Gulf War veterans. Opportunities for change and improvement have emerged as a result of lessons learned through CCEP and PGR implementation, research studies, and feedback from veterans (IOM, 1998). Change is part of a natural evolutionary process and is important in developing good screening instruments for diagnosis. In evaluating the adequacy of the CCEP, UCAP, and PGR, the IOM concluded that CPGs for the evaluation and management of deployed forces health issues should be developed (IOM, 1998).

GUIDELINE DEVELOPMENT PROCESS

Overview

In early 1999, the Assistant Secretary of Defense for Health Affairs and the Under Secretary for Health for Veterans Affairs initiated development of the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management for evaluating armed forces personnel and veterans returning from deployment. The following objectives were established:

- Achieve satisfaction and positive attitudes regarding post-deployment medical care
- Identify and support decision-making for elements of care essential to all post-deployment evaluations
- Support patient education and communication
- Optimize data collection
- Focus on prevention in subsequent deployments
- Support provider education

The DoD and VHA define CPGs as:

“Recommendations for the performance or exclusion of specific procedures or services derived through a rigorous methodological approach that includes the following:

1. Determination of appropriate criteria, such as effectiveness, efficacy, population benefit, or patient satisfaction
2. Literature review to determine the strength of the evidence (based in part on study design) in relation to these criteria.”

The Guideline was developed to assist clinicians in primary care settings in determining specific diagnoses for individuals seeking care for potentially deployment related experiences or exposures. The Guideline provides a structure, clinical tools, and linked resources allowing clinicians to evaluate and manage patients with deployment related health concerns. The Guideline also applies to non-deployed individuals who are experiencing health concerns which they relate to a deployment; e.g., family members of recently deployed personnel.
The development process for the Guideline is evidence-based whenever possible. Evidence-based practice integrates clinical expertise with the best available clinical evidence derived from systematic research. Where evidence is ambiguous or conflicting, or scientific data are lacking, the clinical experience within the multidisciplinary group guides the development of consensus-based recommendations.

The Guideline is not intended to provide strict indications or contraindications to health care because multiple other considerations may be relevant for an individual patient, including past medical history, family setting, occupational needs, and lifestyle preferences. The reader is reminded that the Guideline does not supersede the clinical judgment of the clinician.

Guideline Development

The Guideline and algorithms are designed to be adapted to an individual facility’s needs and resources. They will be updated periodically, or when relevant research results become available and user feedback is obtained through DoD and VHA field trials. The Guideline should be used as a starting point for innovative plans that improve collaborative efforts and focus on key aspects of care. The system wide goal is to improve local management of patients with post-deployment health concerns, thereby improving patient outcomes.

The Guideline is the product of many months of diligent effort on the part of clinical experts from the DoD, VHA, academia, a team of guideline development specialists, and an experienced moderator who facilitated the multidisciplinary panel. Internal Medicine, Family Practice, Preventive and Occupational Health, Public Health, Sports Medicine, Primary Care Physicians, Epidemiologists, Surgeons, Psychologists, Psychiatrists, Nurses, Nurse Practitioners, Physician Assistants, Quality and Risk Managers, Risk Communicators, and expert consultants in the field of algorithm and guideline development contributed to the Guideline. Policy-makers and civilian practitioners joined these experts from the DoD and VHA.

The clinical experts subjected all decision points in the algorithm to simulation exercises. Hypothetical "patients" were run through the algorithm to test whether it was likely to work in a real clinical situation. If an irregularity was encountered, changes were made. Therefore, the clinical experts are reasonably confident that the algorithm will prove to be useful and valid in real clinical encounters.

The Guideline will be integrated with other existing evidence-based CPGs for the evaluation of more readily apparent and clinically defined diagnoses that include stress-related psychological conditions, such as depression, anxiety, and tension headache, and musculoskeletal disorders. Work also continues within the DoD and VHA to develop supporting CPGs for management of specific deployment related illnesses among armed forces personnel and veterans. Guidelines are available on-line on the Internet.

Literature Search

The literature supporting the decision points and directives in the Guideline is referenced throughout the document. Prior to a review of the literature, the work group leaders provided input on focal issues.

A search was carried out using the National Library of Medicine’s (NLM) MEDLINE database. Boolean "AND" expressions were used in conjunction with the targeted MEDLINE Medical Subject Headings (MeSH) “descriptor” categories, including but not limited to, those listed below:

- Anxiety
- Mental disorders, including anxiety and depression
- Pharmacotherapies
- Fatigue syndrome
- Fibromyalgia
- Medically unexplained symptoms
- Multiple chemical sensitivities
- Post-Traumatic Stress Syndrome
- Post War Risk Factors
MeSH "qualifiers" (e.g., meta-analysis), were also utilized to request specific types of publications, such as peer reviewed journals and tutorials, using two discreet query delimiters:

- Articles published between 1996 and 1999, with some exceptions
- English language only

Each work group participant received a reference package of relevant literature, including journal abstracts/articles, texts, and publications and several sample health evaluation screening tools.

### Format

The Guideline is presented in an algorithmic format. There are indications that this format improves data collection and clinical decision-making and helps to change patterns of resource use. A clinical algorithm is a set of rules for solving a clinical problem in a finite number of steps. It allows the clinician to follow a linear approach to critical clinical information needed at the major decision points in the disease management process and stepwise evaluation and management strategies that include the following:

- Ordered sequence of steps of care
- Required observations to be made
- Decisions to be considered
- Actions to be taken

It is recognized, however, that clinical practice often requires a nonlinear approach and must always reflect the unique clinical issues in an individual patient-clinician situation. The use of guidelines must always be considered as a recommendation within the context of a clinician's medical judgment in the care for an individual patient.

A clinical algorithm diagrams a guideline into a step-by-step decision tree. Standardized symbols are used to display each step in the algorithm (Society for Medical Decision Making Committee on Standardization of Clinical Algorithms, 1992).

- **Rounded rectangles** represent a clinical state or condition.
- **Hexagons** represent a decision point in the guideline, formulated as a question that can be answered Yes or No.
- **Rectangles** represent an action in the process of care.
- **Ovals** represent a link to another section within the guideline.

### Annotations

A letter within a box of an algorithm refers the reader to the corresponding annotation. The annotations elaborate on the recommendations and statements that are found within each box of the algorithm. These annotations include a reference, when required, and evidence-grading for each recommendation, when available. The strength of the recommendation (SR) and the quality of the evidence (QE) are both noted and followed by a brief discussion of the underlying rationale.
The reference list at the end of each annotation includes all the sources used—directly or indirectly—in the development of the annotation text. A complete bibliography is provided at the end of the document.

Evidence Rating

The work group reviews the articles for relevance and grades the evidence using the rating scheme published by the U.S. Preventive Services Task Force (U.S. PSTF, 1996). The experts themselves, after an orientation and tutorial on the evidence-grading process, formulate QE and SR ratings. Each reference is appraised for scientific merit, clinical relevance, and applicability to the populations served by the Federal health care system. Recommendations are based on consensus of expert opinions and clinical experience, only when scientific evidence is unavailable. Table I includes the Evidence Grading Table, which is based on the U.S. Preventive Services Rating Scheme, U.S. PSTF, 1996.

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<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tr>
<td>I</td>
<td>Evidence is obtained from at least one properly randomized controlled trial.</td>
</tr>
<tr>
<td>II-1</td>
<td>Evidence is obtained from well-designed controlled trials without randomization.</td>
</tr>
<tr>
<td>II-2</td>
<td>Evidence is obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.</td>
</tr>
<tr>
<td>II-3</td>
<td>Evidence is obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments could also be regarded as this type of evidence.</td>
</tr>
<tr>
<td>III</td>
<td>Opinions of respected authorities are based on clinical experience, descriptive studies in case reports, or reports of expert committees.</td>
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<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>There is good evidence to support the recommendation that the condition be specifically considered.</td>
</tr>
<tr>
<td>B</td>
<td>There is fair evidence to support the recommendation that the condition be specifically considered</td>
</tr>
<tr>
<td>C</td>
<td>There is insufficient evidence to recommend for or against the inclusion of the condition, but a recommendation may be based on other grounds.</td>
</tr>
<tr>
<td>D</td>
<td>There is fair evidence to support the recommendation that the condition be excluded from consideration</td>
</tr>
<tr>
<td>E</td>
<td>There is good evidence to support the recommendation that the condition be excluded from consideration</td>
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The Guideline for the management of post deployment health is a novel effort. There are very limited research studies for this topic in the literature. Often, the most basic patient management questions and well-accepted care strategies have not been tested in randomized control trials. For example, no randomized clinical trials are likely to be conducted to evaluate the importance of a medical history and physical examination in management of patients after deployment. For many recommendations, there is insufficient evidence to determine whether or not routine interventions will improve clinical outcomes. Lack of evidence of effectiveness does not mean that there is evidence of ineffectiveness. Therefore, the recommendations for these well-accepted care strategies do not include grading of the strength of the evidence. The specific language used to formulate each recommendation conveys panel opinion of both the clinical importance attributed to the topic and strength of available evidence. It is expected that this Guideline will encourage future research that will generate practice-based evidence for inclusion in future versions of the Guideline.
The assembled experts were an invaluable source of additional information and suggested numerous references that were distributed to participants on an as-needed basis. It must be noted that this document does not, however, include reference to any publications dated after December 1999. More recent information will be included in future Guideline updates.

Guideline Content

The Clinical Practice Guideline for Post-Deployment Health Evaluation and Management is a single module consisting of three parts that address three aspects of related care:

- A1: Assessment of Post-Deployment Health Concern
- A2: Decision and Triage of the Patient With Unexplained Symptoms
- A3: Management of the Patient with an Established Diagnosis

The Guideline also contains appendices that provide more information on the work group participants, the CCEP and the PGR, and standard health assessment tools. In addition, a bibliography and list of acronyms are included.

REFERENCES

CLINICAL PRACTICE GUIDELINE FOR POST-DEPLOYMENT HEALTH EVALUATION AND MANAGEMENT

ACKNOWLEDGEMENTS
Prepared By:

THE CLINICAL PRACTICE GUIDELINE FOR
POST-DEPLOYMENT HEALTH EVALUATION
AND MANAGEMENT WORK GROUP

With Support From:

The Quality Management Directorate,
United States Army Medical Command

The Office of Performance and Quality,
Veterans Health Affairs Headquarters, Washington, DC

The Clinical Practice Guideline
Development and Standardization Project

The External Peer Review Program

Contractor:
Birch and Davis Associates, Inc.
Contract Number: DASW01-95-D-0026

September 2000/ UPDATE December 2001
Version 1.2
CLINICAL PRACTICE GUIDELINE FOR POST-DEPLOYMENT HEALTH EVALUATION AND MANAGEMENT

ALGORITHM AND ANNOTATIONS
POST DEPLOYMENT HEALTH CONCERN
EVALUATION AND MANAGEMENT

1. DoD/VHA health care beneficiary with deployment related health concern [A]

2. Assess chief complaint of concern. Obtain medical, psychosocial history, physical exam, laboratory tests [B]

3. Reinforce partnership with the patient to address deployment concerns [C]
   - Review history of deployment
   - Research deployment health issues [C]

4. Does the patient present signs or symptoms? [Y/N]

5. Asymptomatic patient with health concern [K]

6. Can a final diagnosis be reached? [Y/N]
   - No diagnosis established [D]

7. Provide reassurance and patient health education [L]

Deployment

Any current or past event or activity that relates to duty in the armed forces that involves an operation, location, command, or duty that is different from the military member’s normal duty assignment (DoD, JP 1-02, 19A).

Military members meet deployment criteria anytime they leave the physical locale of the parent command and enter an environment for operational deployment or are stationed in a hostile territory.

This guideline also applies to family members’ health concerns that relate to deployment. [C]
POST DEPLOYMENT HEALTH CONCERN EVALUATION AND MANAGEMENT

20. Patient with established diagnosis related to deployment
   → 20. Continue laboratory workup as indicated

31. Identify and initiate treatment plan
    Consider specialty consultation

32. Provide patient education [AA]

26. Are there indications for collaboration with a Deployment Health Clinical Center (DHCC)? [BD]
   Y → 26. Establish contact and collaborate with a DHCC [CC]
   N → 26. Does the patient's health concern persist?
   Y → Return to: box 4 page A1
   N → 26. Follow-up as indicated [CC]
ANNOTATIONS

**A. DoD/VHA Health Care Beneficiary with Deployment Related Health Concern**

**DEFINITION**

A Department of Defense (DoD) or Veterans Health Administration (VHA) health care beneficiary presenting to a primary care clinician for the evaluation and management of a post-deployment health concern.

**ANNOTATION**

“The nation has a commitment to protect and care for, to the maximum extent possible, the health of military personnel, veterans, and their families. This responsibility is minimizing adverse health effects of military service—both those experienced during the years of military service and those that first appear years after the period of military service” (Presidential Review Directive 5, 1998).

Symptoms and health concerns after a deployment are often indistinguishable from those reported in routine primary health care settings. However, deployment also presents unique and often difficult challenges for military members, veterans, and their families. The military members may experience physical or psychological trauma resulting from a variety of factors, such as combat, environmental extremes, illness or infectious disease, injury, weapons of mass destruction, and toxic environmental threats (IOM, 1999). Female military members may undergo additional health concerns during deployment, including decreased privacy and hygiene, urinary tract and fungal infections, unplanned pregnancy, and sexual assault that may impact their reproductive future post-deployment (Williams, 2000).

Deployment may create or exacerbate existing family problems and strain already fragile family relationships and coping mechanisms. Family members may experience heightened personal and interpersonal stress as a result of sudden changes within the family unit—both the military member’s separation and return. The heightened stress may adversely affect the physical and mental health of each family member and may also lead to domestic violence (IOM, 1999).

All persons should be asked "Is your problem today related to a deployment?" upon visiting any provider for an illness or concern. This is easily accomplished when the person's vital signs are taken. The condition-relatedness to deployment should be noted in the person's record. The clinician can proceed further based on clinical relevance and appropriateness.

It is important for the clinician to determine if the patient has been deployed (see Annotation C) and if the patient's symptoms are deployment related. The determination should be made in light of the patient’s entire medical and deployment history. Even then, in some cases it could be premature to determine that the health concern or problem is deployment related. If a definitive determination cannot be made and either the patient or the clinician continues to suspect that the concern or problem is deployment related, the clinician should continue with the next steps in the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (Delbanco, 1992; Engel & Katon, 1999).

**DISCUSSION**

DoD and VHA health care beneficiary identification and eligibility requirements are specified in the following documents:

- United States Code, Title 10, Part II, Chapter 55, Section 1072, 1074, 1076
- United States Code, Title 38, Part II, Chapter 17, Section 1710–1713
- Public Law 102-405, Title I. Veterans Health Care Amendment Act of 1992
- Public Law 102-585, Title VII. Persian Gulf War Veterans Health Status Act
REFERENCES

6. Title 10 United States Code, Armed Forces. Chapter 55. *Medical and Dental Care*.
7. Title 38 United States Code, Veterans Benefits, Chapter 17. *Hospital, Nursing Home, Domiciliary, and Medical Care*.

B. **Ascertain Chief Complaint/Concern; Obtain Medical Psychosocial History, Physical Exam, Laboratory Tests**

**OBJECTIVE**

Establish the reason for the patient’s visit and obtain comprehensive patient data in order to reach a working diagnosis.

**ANNOTATION**

The clinician should obtain and review the deployment history with the patient to surface potential links to the chief complaint or concern. The patient’s beliefs, expectations, and personal circumstances are significant and may play a strong role in the management of their health care. Some military members are dissatisfied with how clinicians respond to deployment related health concerns. The clinician can validate the patient’s deployment related health concerns and communicate care and understanding by completing a thorough and early review of the following:

- All Medical Records
- Medical History and Psychosocial Assessment
- Review of Systems
- Physical and Mental Status Exam
- Routine Test Results

Unstable health problems should be addressed immediately before continuing with data collection.
DISCUSSION

In addition to routine medical history and review of systems the following should be assessed:

- Occupational and deployment history, including possible risks, hazards, and exposures to toxic agents
- Combat exposure, including excessively violent or brutal treatment of civilians or prisoners
- Travel history pre-, during, and post-deployment, including immunizations and other prophylactic measures
- Reproductive history including:
  —Infertility or sexual dysfunction among males and females
  —Menstrual history, miscarriages, stillbirths, and congenital malformations among females
- Prescription history, including over-the-counter medications and herbs
- Tobacco, alcohol, and illicit drug use
- Job stability and stress
- Physical and emotional abuse or sexual harassment and assault
- Current support structure, including marital status, family, and friends
- Family, developmental, and psychosocial history
- Sleep habits

Routine Post-Deployment Laboratory Testing may include the following:

- Complete Blood Count (CBC)
- Basic chemistries, including electrolytes, Blood Urea Nitrogen (BUN), creatinine, glucose, and liver function tests
- Urinalysis
- Tuberculin Skin Test (PPD), if not completed within the past 6 months

Standard Health Assessment could include the following:

- Medical and exposure history assessment
- Patient Health Questionnaire (PHQ), a screening tool for depression, somatization, panic disorder, anxiety, alcohol abuse or dependency, binge eating disorder, and bulimia nervosa (see Appendix C).
- Post Traumatic Stress Disorder (PTSD) CheckList (PCL), a screening tool specifically designed to assess trauma-related distress that can be self-administered in a brief time period (see Appendix C)

REFERENCES


C. Definition of Deployment

OBJECTIVE

Identify patients who have a history of deployment.
ANNOTATION

Deployment is defined as any current or past event or activity that relates to duty in the armed forces that involves an operation, location, command, or duty that is different from the military member’s normal duty assignment (DoD, JP 1-02, 1994). Military members meet deployment criteria anytime they leave the physical locale of the parent command and enter an environment for operational deployment or are stationed in a hostile territory.

The number of military members deployed in any specific operation can vary from one to hundreds of thousands. A deployment may last anywhere from a few days to six months or longer. Military members may deploy to a well-supported U.S. or foreign military base in a developed country, a field setting in an urban or rural part of a developing country, or on a ship visiting foreign ports (DoD Directive 6490.2, 1997; DoD Instruction 6490.3, 1997).

The Clinical Practice Guideline for Post-Deployment Health Evaluation and Management also applies to individuals who were not deployed, but have health concerns relating to a deployment; e.g., family members of recently deployed personnel.

DISCUSSION

DoD criteria for deployment includes all activities from origin or home station through destination, specifically including intra-continental U.S., inter-theater and intra-theater movement legs, staging, and holding areas. DoD officially defines deployment as follows:

- The change from a cruising approach or contact disposition to a disposition for battle (Navy)
- The movement of forces within areas of operation
- The positioning of forces into a formation for battle
- The relocation of forces and materiel to desired areas of operations

Deployment missions vary and may include:

- Military liaison and training support
- Joint and coalition force exercises
- Construction projects
- Humanitarian assistance, including health care
- Refuge relief
- Peacekeeping
- Peacemaking
- Low-intensity Conflict (LIC)
- War
- Any combination of the above and other missions

Within the U.S., military members may deploy to conduct the following operations:

- Fight forest fires
- Provide disaster relief
- Assist against terrorist actions
- Maintain civil order
- Support drug interdiction and border patrol operations

The military member may also deploy as part of an official Joint Staff deployment, which is defined as “a troop movement resulting from a [Joint Chiefs of Staff] unified command deployment order for 30 continuous days or greater to a land-based location outside the U.S. that does not have a permanent U.S. military medical treatment facility” (DoD, Joint Staff Memorandum, 1998).
REFERENCES


D. Reinforce Partnership with the Patient to Address Deployment Concern(s)

OBJECTIVE

Promote patient trust at the earliest opportunity.

ANNOTATION

Recent experience has shown that individuals concerned about health after deployment may be especially inclined to distrust the Government, making it particularly important for clinicians to establish individual rapport and foster open communication with patients.

Post-deployment health communication typically involves high concern issues. Surveys, case studies, and focus groups indicate that trust and credibility are not quickly or easily established. Rather, they are the result of building and maintaining partnerships.

To establish a partnership with the patient, the clinician should:

- Acknowledge the patient’s concerns and symptoms
- Indicate commitment to understand the patient's concern and symptoms
- Encourage open and honest transfer of information that will provide a more comprehensive picture of patient's concerns and medical history
- Indicate commitment to allocate sufficient time and resources to resolving the patient’s concerns
- Avoid open skepticism or disapproving comments in discussing the patient’s concerns

At each patient visit the clinician should consider the following:

- Ask if there are unaddressed or unresolved concerns
- Summarize and explain all test results
- Schedule follow-up visits in a timely manner
- Explain that outstanding or interim test results and consultations will be reviewed during the follow-up visits
- Offer to include the concerned family member or significant other in the follow-up visit

REFERENCES


E. **Review History of Deployment; Research Deployment Health Issues**

**OBJECTIVE**

Enhance the clinician’s knowledge regarding deployment health issues.

**ANNOTATION**

The clinician can validate the patient’s deployment related health concerns and communicate care and understanding.

Often when evaluating patients with deployment related health concerns, the patient initially knows more about deployment specific exposure than the clinicians. Before proceeding further, the clinician should obtain a clear understanding of the possible risk factors and range of agents the patient may have been exposed to. The clinician should thoroughly research the patient’s deployment related health concerns and identify known risks and exposures for a particular deployment. A follow-up appointment provides the clinician with time to research relevant information before discussing it with the patient.

A vast amount of this information is available at various governmental and non-governmental sources. The Deployment Health Resource Web site will provide links to these sources and other information about potential exposures, immunizations, endemic diseases, and other related information. This site will include information from civilian publications and provide links to other data sources that could provide additional information to the clinician and patient. See the Deployment Health Resource Web site at www.pdhealth.mil.

F. **Does the Patient Present Signs or Symptoms?**

**OBJECTIVE**

Identify a patient who has an injury or illness.

**ANNOTATION**

Often after deployment, patients may be reluctant to share signs and symptoms they are experiencing because of occupational and other concerns, including fear of losing their job. Patients may express their concerns as a request or offer additional complaints during the examination that may clarify the true reason for the visit. In other cases, the patient without symptoms may want to discuss deployment related health concerns. It is important to remember that *either* the patient’s report of symptoms or the observation of a sign can determine the presence of an illness or injury.

Clinicians should be aware of the fact that our understanding of health outcomes after deployment is limited. Some symptoms may not be obvious or may not have manifested yet.

- Signs are defined as objective physical findings.
- Symptoms are defined as subjective complaints.
- The presence of *either* signs or symptoms warrants further investigation and can suggest the presence of an illness or injury.
• The absence of both signs and symptoms indicates a need to proceed with patient education and reassurance.
• Unusual or emerging illnesses might present as previously unrecognized constellations of symptoms and signs.

DISCUSSION

The clinician needs to understand the type and extent of the patient’s health concerns before he or she can adequately address them. However, some patients may be unwilling or unable to verbalize concerns to the clinician because of fear of receiving an unfavorable reaction or unreliable response. In such cases, the clinician may place an increased emphasis on nonverbal sensitivity.

Nonverbal sensitivity requires that the clinician pay special attention to nonverbal cues that denote the patient’s true feelings. These cues could include posture, eye contact, facial expressions, and indirect language. Addressing nonverbal cues is valuable to ultimately understanding and communicating with the patient. It is important to note that 50 percent of patients' care time is spent on problems that are primarily psychological (Korsch & Negrete, 1972).

G. Can a Final Diagnosis be Reached?

OBJECTIVE

Determine if the patient has a recognizable medical condition.

ANNOTATION

After determining that the patient is presenting signs or symptoms, the clinician needs to formulate a working diagnosis. Additional studies or the patient’s response to treatment will confirm the working diagnosis. In some cases, the clinician will be unable to formulate a diagnosis, in which case it is important to ensure that the following activities were completed and reviewed:

- A complete and thorough medical record review
- A complete history and physical examination (see Annotation B)
- All basic laboratory studies and tests (see Annotation B)
- A thorough deployment history (see Annotation E)
- A review of the health risk associated with the deployment (see Annotation E)
- A standard health assessment (e.g., Patient Health Questionnaire™ (PHQ) and PTSD CheckList (PCL-C))

It is highly recommended that two or more patient visits be completed before concluding the patient does not have a recognizable illness or injury.

H. Review Medical Record

OBJECTIVE

Further evaluate and review all patient data.

ANNOTATION

The clinician should review patient's entire medical history, looking for indicators or symptoms that may have been missed upon first review.
The *Medical Record review* should include the following:

- Complete medical history
- Family and social history
- Occupational and deployment history, including possible risks, hazards, and exposures to toxic agents
- Prescription history, including over-the-counter medications and herbs
- Pre- and post-deployment physical examinations, including immunizations and other prophylactic measures
- Clinical notes
- Emergency room evaluations
- Other routine history and physical examinations
- Radiological, laboratory, and other ancillary test results

### I. Obtain Ancillary Studies as Indicated

**OBJECTIVE**

Further evaluate and confirm the working diagnosis.

**ANNOTATION**

Selected ancillary studies should be performed based on clues derived from the history and physical examination. The clinician should avoid performing ancillary studies purely for the basis of screening as these tests may have very low specificity, may result in false positive results, and may cause unrealistic expectations on behalf of the patient.

### J. Research Deployment Health Issues

**OBJECTIVE**

Enhance the clinician’s knowledge regarding deployment health issues.

**ANNOTATION**

Often when evaluating patients with deployment related health concerns, the patient initially knows more about deployment specific exposure than the clinicians. Before proceeding further, the clinician should obtain a clear understanding of the possible risk factors and range of agents the patient may have been exposed to. The clinician should thoroughly research the patient’s deployment related health concerns and identify known risks and exposures for a particular deployment. A follow-up appointment provides the clinician with time to research relevant information before discussing it with the patient.

A vast amount of this information is available at various governmental and non-governmental sources. The Deployment Health Resource Web site will provide links to these sources and other information about potential exposures, immunizations, endemic diseases, and other related information. This site will include information from civilian publications and provide links to other data sources that could provide additional information to the clinician and patient. See the Deployment Health Resource Web site at [www.pdhealth.mil](http://www.pdhealth.mil).
K. Asymptomatic Patient with Health Concern

DEFINITION

A patient who expresses a health concern, yet does not exhibit or describe any discernable illness, is categorized as “asymptomatic with health concern.” These concerns may be expressed in the form of questions about illness, exposure, or recent media coverage. The clinician should continue to nurture the patient-clinician partnership, elicit the patient’s trust, and address the patient’s health concerns.

A non-deployed family member may express a health concern that is frequently related to reproduction or the possibility of a contagious illness. In addition, he or she may seek information and reassurance regarding changes or symptoms they have observed in a deployed spouse.

L. Provide Reassurance and Patient Health Education

OBJECTIVE

Validate the patient’s thoughts, feelings, and attitudes, reassure the patient, and reinforce the patient-clinician partnership.

ANNOTATION

Risk Communication:

Risk Communication involves the exchange of information among interested parties about the nature, magnitude, significance, or control of a risk. Clinicians are continually asked to provide information about health, safety, and environmental risks to interested individuals, families, and communities. Risk assessment provides a strong foundation for the understanding of a risk and can be an important perspective for clinicians. Risk Communication is a crucial component of the care, treatment, and support for the patient, patient’s family, or significant others.

In order to maintain the patient-clinician partnership, it is necessary to address and discuss the patient’s concerns throughout the evaluation processes. This communication involves a two-way dialogue between the patient and clinician and is especially critical when a diagnosis has not yet been established. The effectiveness of communications involving a highly personal concern, such as the patient’s personal health, is primarily determined by the patient’s perception of how trusted and credible the clinician is.

There are four factors that influence perceptions of trust and credibility for discussions of high concern issues (Kolluru, 1996):

- Caring and empathy
- Competence and expertise
- Dedication and commitment
- Honesty and openness

Patient Education:

Patient education is one of the most important responsibilities of the clinician. It is facilitated by attention to the patient’s expectations, beliefs, and decisions.

Patients bring a set of beliefs about themselves and the meaning of their symptoms and environmental exposures into encounters with their clinician. Patient expectations of illness and the consequences of exposures may differ significantly from scientific models. The goals of the clinician should include attempting to understand the patient's beliefs, informing the patient about pertinent scientific information, and establishing
a collaborative and negotiated understanding upon which further communication and work can be based. Some types of patient education may be more effectively provided by other members of the health care team or in a group setting.

DISCUSSION

Several studies emphasize the importance of trust and credibility in the formation of perceptions during health communication. Specific behaviors have been shown to influence the patient’s satisfaction with communication. The amount of warmth and friendliness shown by the clinician is positively related to patient satisfaction (Hulka et al., 1975). Furthermore, a study conducted by Street and Wiemann (1987) determined that health care satisfaction was positively associated with the patient’s perception of the degree of interpersonal involvement and expressiveness of the clinician, and was negatively associated with the patient’s perceived communicative dominance by the clinician.

Health communication is effective when the clinician’s actions and communications (both verbal and nonverbal) convey the factors listed below:

- Caring and empathy, including perceived sincerity, ability to listen, and ability to see issues from the perspective of others
- Competence and expertise, including perceived intelligence, training, experience, education level, professional attainment, knowledge, and command of information
- Dedication and commitment, including perceived altruism, diligence, self-identification, involvement, and hard work
- Honesty and openness, including perceived truthfulness, candidness, fairness, objectivity, and sincerity

Of the four factors, patient perceptions of caring and empathy are the most important. Research has shown that it can account for 50 percent or more of an individual’s trustworthiness and credibility. In 1984, Beckman and Frankel cited findings indicating that specific communication behaviors, such as listening and not interrupting, may lead to patient satisfaction. Hulka et al. (1975) found that patient satisfaction with health communication is influenced by the clinician’s awareness of the patient’s concerns.

Patient perceptions of competence and expertise also help determine the clinician’s level of trust and credibility. Competence and expertise are the easiest factors to establish because clinicians are automatically perceived by the public to be credible sources of information. A minimal amount of time needs to be spent establishing competence and expertise.

Perceptions of honesty and openness result from both nonverbal cues and words that convey truthfulness, objectivity, and sincerity. Nonverbal cues, such as eye contact and facial expressions, often make more of an impression on the patient than do verbal messages. A patient often perceives the use of medical jargon as a way to mask the truth. Although reliance on medical language may be necessary to communicate some ideas, some patients may not understand or comprehend what the clinician is trying to convey (Samora et al., 1961). Simply put, the clinician must speak the patient’s language because some patients are unable to speak or understand the clinician’s language.

Perceptions of dedication and commitment are influenced by perceptions of the clinician’s hard work in pursuit of health goals. It is vital to the communication process that the clinician reinforces the truth and credibility factors throughout every discussion with the patient. Otherwise, miscommunication and misperception may impede the communication process, which could negatively impact the patient’s treatment or prevent the patient from seeking treatment in the future.

REFERENCES


3. Hulka, B. A., Kupper L. L., and Daly, M. B. "Correlates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective." Medical Care. 1975. 13: 648. \(\text{QE}=\text{II-2B}, \text{SR}=\text{A}\).


M. Does the Patient's Concern Persist?

OBJECTIVE

Identify an asymptomatic patient who continues to have a health concern.

ANNOTATION

A second direct patient contact should be made within two to four weeks of the initial visit to allow for re-evaluation and to arrange continued contact and access to care, if necessary. Contact should be made by telephone or in person, if possible.

DISCUSSION

After identifying the type and extent of the patient’s health concern and providing reassurance and education, the clinician must determine whether the patient’s health concern still exists. This is necessary to determine the next step in the patient’s treatment.

If the health concern does not persist, the clinician needs to reiterate that time is available for additional discussions regarding current or future concerns. This practice reinforces the trust and credibility factors of empathy and caring, honesty and openness, and dedication and commitment. This practice also allows the patient time to digest the information provided during the appointment. Upon further consideration, the patient might think of additional questions or need clarification of specific issues. The clinician should ensure that the patient knows how to contact them through e-mail, telephone, or by scheduling an appointment.

REFERENCES


N. Reevaluate/Consider Consultation

OBJECTIVE

Resolve the patient's health concern.

ANNOTATION

If the patient’s health concern persists despite reassurance and education, the clinician should re-evaluate the patient's medical data to assure that a diagnosis has not been missed and assess the patient’s status for the next course of action. The clinician should provide the patient with additional reassurance and educational material, if indicated, keeping in mind that patient dissatisfaction is often related to communication variables. To increase patient satisfaction the clinician should provide detailed explanations to the patient using less medical jargon.

The clinician should consider discussing the patient’s medical data with another clinician or consulting with or referring to a specialist. The consulted specialist may be able to interact and communicate more effectively with the patient regarding this type of health concern or may have experience in communicating with patients who exhibit similar health concerns.

Consultation sources, when clinically appropriate, include but are not limited to:

- Social Services
- Family Advocacy Program
- Preventive Medicine/Public Health
- Bioenvironmental Engineering/Environmental Sciences/Industrial Hygiene
- Reproductive Toxicology
- Genetic Counseling
- Health Promotions
- Medical Specialty Consultations
  — Infectious Disease
  — Psychiatry/Psychology
  — Pulmonary
  — Cardiology
  — Internal Medicine
  — Allergy/Immunology
  — Women’s Clinic – OB/GYN
  — Gastroenterology
  — Rheumatology
  — Neurology
- Health Information/Education Sources
- Spiritual Counseling

O. Follow-Up as Indicated

OBJECTIVE

Assure that the patient's health concerns have been addressed.

ANNOTATION

It is important that the clinician provide the patient with the opportunity to digest the information provided during the appointment and to discuss concerns with friends and family. The patient may think of additional
questions or need clarification of specific issues. The clinician should provide a means for the patient to contact them directly (e.g., e-mail, voice mail, or pager). To reinforce the trust and credibility factors of empathy and caring, honesty and openness, and dedication and commitment, the clinician should reaffirm with the patient the availability of future appointments to discuss current or future concerns.

REFERENCES


P. Patient with Health Concern and No Diagnosis Established

DEFINITION

A patient with no established diagnosis will fall into one of four categories:

- Well-recognized diseases not yet manifesting common signs and symptoms
- Emerging diseases—Objective finding with as yet unknown etiology based on current scientific knowledge (e.g. HIV in 1982)
- Medically unexplained physical symptoms—Symptoms without isolated objective findings and clinically identifiable pathophysiology
- Isolated objective findings—Physical signs or laboratory abnormalities without symptoms

Note: Patients may also end up in this category because of clinician or laboratory error (e.g., false positive or negative results or misinterpretation of positive or negative results).

DISCUSSION

One of the main obstacles to understanding medically unexplained symptoms is the confusing terminology sometimes applied to them. For clarity, the Guideline adopts a consistent terminology. "Unexplained symptoms" or "medically unexplained symptoms" are the terms used to describe physical symptoms that provoke care-seeking, but have no clinically determined pathogenesis after an appropriately thorough diagnostic evaluation (Engel & Katon, 1999). Clinicians, scientists, symptomatic individuals, the media, employers, and other groups frequently apply labels to unexplained symptoms for different purposes. These labels may communicate an implied pathogenesis, such as chronic fatigue syndrome (infectious), certain low-level chemical sensitivities (allergic), somatoform disorders (psychiatric), and fibromyalgia (rheumatologic). The Guideline will rely on the more generic "medically unexplained symptoms" or "unexplained symptoms" to describe diagnoses or conditions characterized by symptoms, rather than objective clinical evidence (i.e., signs found on examination or laboratory findings) of an underlying pathophysiological process.

Recently, the Centers for Disease Control (CDC) defined "chronic multisymptom illness" and applied the definition to study the relationship of the Gulf War to subsequent illness. The chronic multisymptom illness definition has the advantage of encompassing several common syndromes that are comprised of unexplained symptoms (Fukuda & Nisenbaum, 1998). The chronic multisymptom illness definition, developed using factor analysis and clinician assessments, is the presence of two or more of the following symptoms: musculoskeletal pain in more than one body region, debilitating fatigue, and cognitive or mood impairment. Frequently associated symptoms such as digestive, respiratory, and nervous system symptoms were not included in the CDC definition.

Unexplained symptoms occurring in the general population include fibromyalgia, chronic fatigue syndrome, hysteria, somatization disorder, conversion disorder, multiple chemical sensitivities, and other names (Buchwald & Garrity, 1994; Clauw, 1995; Clauw & Chrousos, 1997; Kipen & Fiedler, 1999; Barsky & Borus, 1999; and Wessely & Nimnuan, 1999). Patients with chronic fatigue syndrome, fibromyalgia, and temporomandibular disorder may also experience overlapping conditions.
'Disease' and 'illness' are terms sometimes used in the Guideline. When properly used, these terms are not interchangeable (Jennings, 1986). A disease is a pathophysiological process that is identified via objective findings (i.e., signs found on clinical examination or laboratory evidence) (Mayou & Sharpe, 1995; Susser, 1990). In contrast, illness is a subjective lack of wellness that is identified via the complaints and behaviors of the affected person. Illnesses encompass the complete range of physical and mental symptoms and the suffering that is experienced with them (Mayou & Sharpe, 1995; Jennings, 1986; and Susser, 1990). Symptoms and suffering are unusual in some diseases. For example, individuals with essential hypertension seldom perceive their disease until late in its natural history. Similarly, many illnesses involve severe disabling symptoms that are the source of undeniable suffering, even though objective clinical evidence of disease is lacking. Unexplained symptoms may be thought of as illness in the absence of known disease. Unexplained symptoms may also be present if a disease is of insufficient severity to explain the full extent of the associated symptoms.

REFERENCES


Q. Reevaluate Patient Data and Collaborate with Colleague

OBJECTIVE

Reassess the progress of the patient’s workup and the probability of identifying a diagnosis based on currently available data.

ANNOTATION

Input from colleagues with varying expertise may provide the clinician with a fresh viewpoint regarding the patient’s concerns.

Note: Patients may end up in this category because of clinical or laboratory error (e.g., false negative or false positive results or misinterpretation of positive or negative results).
R. Discuss Issues with Patient, Provide Reassurance, and Reinforce Patient-Clinician Partnership

OBJECTIVE

Validate the patient’s thoughts, feelings and attitudes, reassure the patient, and reinforce the patient-clinician partnership.

ANNOTATION

At this point in the workup, the patient is likely to be intensely concerned and potentially mistrustful because the clinician has not identified a cause or explanation for their concerns.

Risk Communication:

In order to maintain the collaborative clinician-patient partnership, it is necessary to address and discuss patient and family concerns throughout the evaluation process. This communication involves an open two-way dialogue between patient and clinician. This is especially important when the diagnosis remains in doubt or when the clinician and the patient disagree about the diagnosis. Under these circumstances, patient concerns escalate and increase any preexisting mistrust of the clinician. The effectiveness of communication regarding highly personal concerns, such as a health concern, is primarily determined by the patient’s assessment as to how credible and trustworthy the clinician is.

There are four factors that will most influence patient perceptions of clinician trustworthiness and credibility in the presence of a persistent unresolved health concern (Kolluru, 1996). These are the patient’s assessment of the clinician’s (for further discussion see Annotation L):

- Caring and empathy
- Competence and expertise
- Dedication and commitment
- Honesty and openness

An additional factor to consider under the circumstances of a post-deployment evaluation is external information that the patient and his or her family may be reading or seeing. For example, if after the deployment in question there are popular theories about illnesses that have received media attention, this may reduce the credibility of the Federally-employed clinician, especially when symptoms are undiagnosed after an extended evaluation (Engel & Katon 1999; Engel 1999).

Under these difficult circumstances, the clinician should:

- Maintain open communication with the patient
- Take the time needed to explain the available findings and acknowledge clinical uncertainty where it exists
- Convey a sense of optimism regarding diagnosis, treatment, and prognosis
- Continue to follow the patient’s progress, since discontinuing contact or referring without a return visit is likely to leave the patient feeling rejected, angry, and mistrustful
- Always make good on his or her word (e.g., if one promises to talk with an expert, then do it and tell the patient about it later)
- Involve the patient’s family or significant others (sometimes the family is more concerned regarding the patient’s health than the patient is) unless the patient refuses family involvement
REFERENCES


S. Does the Patient Present Acute or Progressive Symptoms?

OBJECTIVE

Identify the patient who has an acute, subacute, or progressive illness.

DEFINITIONS

Definitions for acute or progressive symptoms in the context of the Guideline are as follows:

- Acute—Manifestations of illness of less than 3 months duration
- Subacute—Manifestations of illness of 3 to 6 months in duration
- Chronic—Manifestations of illness that are longer than 6 months in duration
- Progressive—Clinically appreciable deterioration during a 3 to 6 month period

ANNOTATION

Acute or progressive symptoms are more likely to represent a diagnosable disease than are symptoms of remote onset or chronic, intermittently relapsing nature. When the diagnosis is not apparent after the initial primary care evaluation, the clinician should take an aggressive approach to diagnostic testing in order to diagnose and treat an acute or progressive illness in a timely manner.

REFERENCES

T. Perform Additional Ancillary Studies as Indicated

OBJECTIVE

Provide objective findings that will result in a diagnosis.

ANNOTATION

When the patient presents with acute or focused signs and symptoms, the clinician should perform additional ancillary studies necessary to obtain a diagnosis. Symptoms of sudden onset or progressive course are more likely to have a diagnosable disease or structural abnormality than are symptoms of remote onset and/or chronic, intermittently relapsing course. The opportunity for timely intervention in the setting of acute or progressive illness dictates an aggressive approach to diagnostic testing, even when the diagnosis is not apparent after the initial primary care evaluation.

DISCUSSION

Additional workups may include, but are not limited to, the following:

- The Erythrocyte Sedimentation Rate (ESR) and C-reactive Protein (CRP) represent acute phase reactants and may be used in distinguishing inflammatory and non-inflammatory disorders. Although they are nonspecific, they may be diagnostically or therapeutically useful.

- Antinuclear Antibodies (ANAs) react with various components of the cell nucleus as well as cytoplasm and cell membrane structures. Positive results are characteristic of systemic lupus erythematosus and related disorders. However, ANAs may be found in normal patients or those with a variety of conditions. The clinical significance of the ANA test often parallels the strength of the titer reported, but these tests are not specific. ANA testing should not be used to screen patients with joint pain or presumed systemic illness.

- Creatine Phosphokinase (CPK) is an intracellular enzyme found in high concentrations in skeletal muscle, myocardium, and brain. Damage to these tissues results in elevated serum levels of CPK. CPK may be elevated and useful in the diagnosis and treatment of inflammatory myositis, muscular dystrophy, myocardial disease, hypothyroidism, cocaine use, muscle trauma, intramuscular injections, and rhabdomyolysis.

- Thyroid Stimulating Hormone (TSH) and other endocrine studies may be indicated.

- Electromyography is a diagnostic test used to evaluate patients with suspected muscle disease. It is often performed in conjunction with nerve conduction testing. It is primarily used to distinguish between weakness caused by disorders of muscle, peripheral nerves, or neuromuscular junction disorders. When combined with nerve conduction testing, it is often useful in distinguishing neuropathic from myopathic causes of muscle weakness.

- Venereal Disease Research Laboratories (VDRL) testing may be used to screen for primary or secondary syphilis in asymptomatic individuals to confirm the diagnosis of secondary syphilis in the presence of syphilitic lesions and gauge the efficacy of therapy. The test detects antibodies that bind cardiolipin and historically was of substantial importance as results were positive in patients with syphilis. A biologic false-positive in a non-pregnant patient should be confirmed with a Treponemal Ab Absorption test. Pregnant patients should be treated on the basis of suspicion of syphilis by history, physical examination, or epidemiology.

- Viral Serologic Testing should only be performed if test results will influence diagnosis, therapy, or prognosis or will help determine the infectivity of an individual patient.
Human Lymphocyte Antigen (HLA) studies should not be routinely ordered for evaluation or screening as results are not diagnostic.

Lyme antibodies should only be ordered when individuals are strongly suspected of having Lyme disease. Lyme disease is a clinical diagnosis with laboratory studies helpful for confirmation.

Rheumatoid factors are not specific for Rheumatoid Arthritis (RA) but can be seen in a variety of other conditions. Therefore, rheumatoid factor measurement should be reserved for individuals with possible RA based on history and physical examination.

HIV testing with appropriate consent and counseling is indicated for patients with known risk factors or suggestive symptoms.

Drug screening is indicated in patients with known risk factors or presenting symptoms.

Symptom-specific examinations to consider are listed in Table II:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Ancillary Studies to Consider</th>
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<tbody>
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<td>Abdominal Symptoms</td>
<td>Esophagogastroduodenoscopy (EGD) with Biopsy and Aspiration</td>
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<td></td>
<td>Colonoscopy with Biopsy</td>
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<td>Abdominal Ultrasound</td>
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<td>Upper Gastrointestinal (GI) Series</td>
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<td>Abdominal Computerized Tomography (CT) Scan</td>
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<td>Gastroenterology Consult</td>
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<td>Women: Gynecology Consult</td>
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<td>Acute: Surgical Consult</td>
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<td>Chest Pain/Palpitations</td>
<td>Electrocardiogram (ECG)</td>
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<td>Cardiac Stress Test</td>
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<td>Holter or Event Monitoring</td>
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<td>Cardiology Consult</td>
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<td></td>
<td>Psychiatry Consult (if panic attacks are suspected and consultation is acceptable to the patient)</td>
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<tr>
<td>Cough/Shortness of Breath</td>
<td>Pulmonary Function Test (PFT) with Exercise and Arterial Blood Gas (ABG)</td>
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<td>Methacholine Challenge if PFTs are normal</td>
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<td></td>
<td>Bronchoscopy with Lavage and Biopsy</td>
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<td>Pulmonary Consult</td>
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<tr>
<td>Chronic Fatigue</td>
<td>Polysomnography (PSG)</td>
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<td>Multiple Sleep Latency Test (MSLT)</td>
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<td>Sleep specialist consult</td>
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<td>Psychology or psychiatry consult (only if acceptable to the patient)</td>
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<td>Diarrhea</td>
<td>Stool (Guaiac, Ova &amp; Parasites, Leukocytes, Culture, Clostridium Difficile, and Volume)</td>
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<td></td>
<td>EGD with Biopsy and Aspiration</td>
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<td></td>
<td>Gastroenterology Consult</td>
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<tr>
<td>Headache</td>
<td>Magnetic Resonance Imaging (MRI) Head</td>
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<td></td>
<td>Lumbar Puncture (Glucose, Protein, Cell Count, VDRL, Oligoclonal Myelin, Basic Protein, and Pressure Reading)</td>
</tr>
<tr>
<td></td>
<td>Neurology Consult</td>
</tr>
<tr>
<td>Memory Problems</td>
<td>MRI Head</td>
</tr>
<tr>
<td></td>
<td>Lumbar Puncture</td>
</tr>
</tbody>
</table>
Table II: Symptom-Specific Examinations

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Ancillary Studies to Consider</th>
</tr>
</thead>
</table>
| Muscle Aches, Numbness, or Weakness | Electromyelogram (EMG)  
Nerve Conduction Velocity (NCV)  
Neurology Consult  
Rheumatology Consult  
Physical Medicine Consult |
| Reproductive Concerns       | Urinalysis (UA) and Culture  
Cervical Pap Smear and Culture  
Semen Analysis  
Urology Consult  
Gynecology Consult |
| Skin Rash                   | Biopsy  
Dermatology Consult |
| Vertigo/Tinnitus            | Audiogram  
Electronystagmography (ENG)  
Brainstem Auditory Evoked Response (BAER)  
Ears, Nose, and Throat (ENT) Consult  
Neurology Consult  
Cardiology Consult (if fainting is involved)  
Psychiatry Consult (if panic attacks are suspected and the consultation is acceptable to the patient) |

REFERENCES


U. Can (Has) a Diagnosis Be (Been) Established?

OBJECTIVE

Identify patients for whom there is a well-defined diagnosis.

ANNOTATION

A diagnosis is a clinically defined injury or disease based on objective and reproducible clinical manifestations of examination, laboratory testing, or medical imaging.

Virtually all patients who see a clinician will receive a label. Biomedicine is firmly predicated on the notion that proper treatment is based upon recognition of the correct disease. However, for syndromes such as multiple chemical sensitivity, chronic fatigue syndrome, fibromyalgia, temporomandibular disorders, fibrositis, interstitial cystitis, irritable bowel syndrome, and chronic pelvic pain, there is ample evidence of diagnostic overlap and limited evidence to support discrete illnesses with distinct pathophysiologies or natural histories. For most of these and other constellations of persistent physical symptoms, comprehensive biomedical evaluation yields few consistent objective findings and does little to guide clinical management or provide insight into associated functional impairment. Typically, these diagnoses are largely descriptive (e.g., retropatellar pain syndrome) or based on hypothesized etiology (e.g., fibromyalgia) rather than a known
pathophysiology. Under the Guideline, conditions that are labeled but are not an objectively evident injury or disease are NOT considered a diagnosis because they do not lead to a specific injury or disease based treatment.

REFERENCES


V. Is Systemic Disease Suspected?

OBJECTIVE

Identify patients with potential systemic disease.

ANNOTATION

It is possible for patients with diagnosable diseases to initially present with acute and unfocused or non-localized symptoms. Diagnosis for these maladies is difficult and often delayed. These conditions include, but are not limited to, connective tissue diseases (e.g., systemic lupus erythematosus and Sjögren’s syndrome), neurological diseases (e.g., multiple sclerosis), infectious diseases, and neoplastic diseases. If the patient’s symptoms suggest one of these conditions, the clinician should consider additional diagnostic studies (see Annotation T).

W. Consider Consulting a Specialist

OBJECTIVE

Provide specialized services to individuals who may need and could benefit from them.

ANNOTATION

In the presence of 1) acute or progressive or 2) chronic and localized symptoms that remain undiagnosed to this point in the evaluation, the clinician is urged to consider consulting an appropriate specialist. In most cases, the (primary care) clinician should remain engaged in the care of the patient after the consultation (see Annotation T for a list of problems and corresponding specialty consultants).

X. Does the Patient Present Localized Symptoms or Signs?

OBJECTIVE

Identify patients with regionally-focused symptoms or signs.
DEFINITION

Localized symptoms or signs are those that involve a single organ system (e.g., skin or nervous system) or a single body area (e.g., knee, head, or epigastrium). Symptoms involving different body quadrants, noncontiguous areas, or multiple organ systems are not localized.

ANNOTATION

Patients experiencing chronic problems with localized or regional symptoms often lend themselves to simple explanations or interventions that require specialized expertise. Because of the need for specialized knowledge, these explanations and treatments have remained unconsidered (e.g., arthroscopy for chronic orthopedic illnesses). In this situation, extended evaluations involving multiple body systems or regions are likely to be inappropriate. Instead, an in depth but localized or anatomic approach at the hands of a specialist may be needed.

XX. Acute Unexplained Symptoms or Signs/Multiple Chronic Unexplained Physical Symptoms

DEFINITION

One of the main obstacles to understanding medically unexplained symptoms is the confusing terminology sometimes applied to them. For clarity, the Guideline adopts a consistent terminology. "Unexplained symptoms" or "medically unexplained symptoms" are the terms used to describe physical symptoms that provoke care-seeking, but have no clinically determined pathogenesis after an appropriately thorough diagnostic evaluation (Engel & Katon, 1999). Clinicians, scientists, symptomatic individuals, the media, employers, and other groups frequently apply labels to unexplained symptoms for different purposes. These labels may communicate an implied pathogenesis, such as chronic fatigue syndrome ( Infectious), certain low-level chemical sensitivities (allergic), somatoform disorders (psychiatric), and fibromyalgia (rheumatologic). The Guideline will rely on the more generic "medically unexplained symptoms" or "unexplained symptoms" to describe diagnoses or conditions characterized by symptoms, rather than objective clinical evidence (i.e., signs found on examination or laboratory findings) of an underlying pathophysiological process.

Recently, the Centers for Disease Control (CDC) defined "chronic multisymptom illness" and applied the definition to study the relationship of the Gulf War to subsequent illness. The chronic multisymptom illness definition has the advantage of encompassing several common syndromes that are comprised of unexplained symptoms (Fukuda and Nisenbaum, 1998). The chronic multisymptom illness definition, developed using factor analysis and clinician assessments, is the presence of two or more of the following symptoms: musculoskeletal pain in more than one body region, debilitating fatigue, and cognitive or mood impairment. Frequently associated symptoms such as digestive, respiratory, and nervous system symptoms were not included in the CDC definition.

Unexplained symptoms occurring in the general population include fibromyalgia, chronic fatigue syndrome, hysteria, somatization disorder, conversion disorder, multiple chemical sensitivities, and other names (Buchwald & Garrity, 1994; Clauw, 1995; Clauw & Chrousos, 1997; Kipen & Fiedler, 1999; Barsky & Borus, 1999; and Wessely & Nimnuan, 1999). Patients with chronic fatigue syndrome, fibromyalgia, and temporomandibular disorder may also experience overlapping conditions.

'Disease' and 'illness' are terms sometimes used in the Guideline. When properly used, these terms are not interchangeable (Jennings, 1986). A disease is a pathophysiological process that is identified via objective findings (i.e., signs found on clinical examination or laboratory evidence) (Mayou & Sharpe, 1995; Susser, 1990). In contrast, illness is a subjective lack of wellness that is identified via the complaints and behaviors of the affected person. Illnesses encompass the complete range of physical and mental symptoms and the suffering that is experienced with them (Mayou & Sharpe, 1995; Jennings, 1986; and Susser, 1990). Symptoms and suffering are unusual in some diseases. For example, individuals with essential hypertension seldom perceive their disease until late in its natural history. Similarly, many illnesses involve severe disabling symptoms that are the source of undeniable suffering, even though objective clinical evidence of disease is
lacking. Unexplained symptoms may be thought of as illness in the absence of known disease. Unexplained symptoms may also be present if a disease is of insufficient severity to explain the full extent of the associated symptoms.

REFERENCES


Y. Discuss Issues with Patient, Provide Reassurance and Education, and Reinforce Patient-Clinician Partnership

OBJECTIVE

Maintain collaboration and convey optimism and future options for assistance.

ANNOTATION

Most patients at this point will feel hopeless, helpless, and mistrustful. The most important message to convey is the availability of help even though the specific cause for their concerns has not been identified. In approximately one out of three patients presenting with a physical symptom, a physical cause could not be identified upon medical evaluation (Kroenke, 1989; Kroenke, 1994; Marple, 1997).

Helpful techniques for conveying optimism to the patient include the following:

- Introduce the notion to the patient that medically unexplained symptoms are distressing and counseling may help them cope.
- Explain to the patient the common nature of medically unexplained symptoms in routine practice.
- Encourage the use of a symptom diary or journal.
- Provide health promoting educational handouts.
- Encourage behavior modification, exercise, weight loss, diet modification, and sleep hygiene.
• Encourage the reduction or cessation of alcohol, tobacco, and caffeine.
• Counsel the patient on the notion that "more care is not better care" and may cause "more harm than good."
• Advise as to the adverse effects of polypharmacy and specific medications (i.e., opioids, benzodiazepines, and related compounds).
• Emphasize that no catastrophic or progressive diseases have been found despite extensive work-up and consider the possibility of a sleep disorder.

This level of education is often helpful to present in a group format.

The clinician should refocus the attention from symptoms to improving patient functioning. Potentially modifiable psychosocial barriers to patient functioning could include:

• Living environment—Homelessness can perpetuate chronic illness as the result of environmental exposure and virtually non-existent personal hygiene.
• Support systems—Negative support on the part of the spouse, family, or significant other can impair and even worsen functionality.
• Job—Workplace factors have been associated with illness-related behavior.
• Finances—disability compensation can perpetuate illness by requiring continuing symptoms and disability for the worker to be eligible for benefits.

DISCUSSION

Physical symptoms account for more than half of all outpatient visits each year in the United States—an estimated 400 million visits. The data collected from general population surveys help to clarify the types and frequency of physical symptoms experienced in the general population. Table III presents six types of physical symptoms and compares the frequency of these symptoms among the general population and survey respondents.

### Table III: Types and Frequency of Physical Symptoms Among Outpatients (1989-1994)

<table>
<thead>
<tr>
<th>Physical Symptoms</th>
<th>Prevalence in General Population</th>
<th>Prevalence Among Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>22 percent</td>
<td>58 percent</td>
</tr>
<tr>
<td>Joint pain</td>
<td>26 percent</td>
<td>59 percent</td>
</tr>
<tr>
<td>Headaches</td>
<td>21 percent</td>
<td>37 percent</td>
</tr>
<tr>
<td>Sleep Difficulties</td>
<td>15 percent</td>
<td>35 percent</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>14 percent</td>
<td>32 percent</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>11 percent</td>
<td>24 percent</td>
</tr>
</tbody>
</table>


The National Ambulatory Medical Care Survey (NAMCS) data of 1989 similarly found that patient concerns of fatigue, headaches, joint pains, and skin rashes resulted in an estimated 47.6 million outpatient visits. The estimated number of outpatient visits for fatigue was 7 million; for headaches, 9.6 million; for joint pains, 17 million; and for skin rashes, 14 million. It was also found that many patients experience more than one symptom.

REFERENCES:


**Z. Follow-Up—Monitor Changes in Patient Status**

**OBJECTIVE**

Establish the patient’s functional baseline and monitor for changes in general health and functional status that may require specific intervention.

**ANNOTATION**

A patient reaching this point in the algorithm requires “watchful waiting” as the primary mode of treatment. The components of watchful waiting in the patient with previously evaluated, but thus far medically unexplained, physical symptoms or signs include the following (Engel & Katon 1999):

- Use diagnostic testing conservatively. Order new tests based upon clinical suspicion only, rather than in a “shotgun” fashion. Except under unusual circumstances, testing should be done only when there are acute changes in the patient’s clinical status that involve objective signs. Avoid ordering new tests for subjective findings or findings that represent acute exacerbations in an already chronic pattern of symptomatology, so-called “flare-ups” of symptoms.
- Use follow-up visits as an opportunity to review and explain prior testing the patient has received and what it means, accentuating normal findings unless abnormal findings have some specific clinical meaning (i.e., don’t confuse the patient with equivocal findings of unknown significance).
- Avoid the use of multiple symptomatic medication treatments as adverse effects of medications increase the risk of harm. Polypharmacy is a common source of morbidity in these patients because they visit physicians often and over extended periods.
- Avoid the use of medications that are harmful if taken for long periods, such as narcotic analgesics or central nervous system depressants (e.g., sedatives, “muscle relaxers”, barbiturate formulations such as Fiorinal or Fioricet, benzodiazepines, and related anxiolytics).
- Offer targeted reassurance. Blanket reassurance often leaves the patient feeling as though the clinician does not understand his or her specific concern. Instead, aim reassurance at specific beliefs or misinformation.
- Negotiate behavioral goals collaboratively with the patient. Identify, with patient input, what health behaviors are important to modify. Avoid becoming prescriptive; for example, you may think the patient is obese, but unless the patient sees his or her weight as a problem, clinician directives to lose weight will fall on deaf ears. Worse yet, clinician directives may alienate the patient and reduce adherence to the overall management plan.
- Encourage physical and role reactivation. In the absence of a clear diagnosis, this is usually the major behavioral goal: maximizing and sustaining the patient’s ability to function. Inquire at each visit about how the patient is functioning. Look for nonjudgmental ways to incrementally maximize physical
activity levels, remembering that efforts must “start low and go slow” in the setting of chronic inactivity.

- Maximally involve social supports.
- Ensure continuity of care. Organize the patient’s care around a single clinician and make visits time contingent (scheduled rather than “PRN” for exacerbations of chronic symptoms). Optimal frequency of visits is generally 4-6 weeks.
- Use consultant resources judiciously. Specialists will often tend to over-emphasize new diagnostic evaluations, often reordering previously ordered tests. This can lead to false positive findings and iatrogenesis.
- Consider consulting with a mental health specialist for patients who seem inordinately distressed by their symptoms. Be sure, however, to explain the reason for the consultation to both the consultant and the patient. Most patients will feel that their credibility is being questioned or that they are being accused of “imagining” their symptoms when sent to a mental health specialist. In the military, they may also fear that the consultation will have career implications. Mental health consultation should only be made when it is acceptable to the patient, except under circumstances of a psychiatric emergency, which usually means that the patient represents an immediate threat of harm to self or others.

Measurement requirements:

Recently-deployed populations are at risk for health concerns, so careful health monitoring of individuals seeking post-deployment care is essential. Accordingly, there are specific measurement requirements. The Short-Form Health Survey-36 (SF-36) has been widely used in clinical settings to assess functional status and general health across eight dimensions (Ware, 1992) (see Appendix C). A veteran-specific instrument has been developed (SF-36V) that differs only slightly from the original tool in providing a spectrum of responses to two questions regarding work or leisure-time limitations due to physical or emotional problems (Kazis, 1999; Kazis, 1998). The SF-36V assessment tool has been used to assess functional status in over 1.5 million veterans who receive care at VA medical facilities.

DISCUSSION

To increase its importance in clinical care, the VA Under Secretary for Health recently designated “Functional Status” as one of the domains of value for the VA system. The SF-36 assessment tool measures functional health status over eight dimensions:

- Physical functioning (10 questions)
- Social functioning (10 questions)
- Role limitations due to physical problems (4 questions)
- Role limitations due to emotional problems (3 questions)
- Mental health (5 Questions)
- Energy/vitality (4 Questions)
- Pain (2 questions)
- General health perception (5 Questions)

Two summary scales, the Physical Component Score (PCS) and Mental Component Score (MCS), are generated from the scores obtained on these eight dimensions. Scores for each dimension are standardized to a 0-100 point scale and the lower the score, the higher the level of dysfunction. The MCS and PCS scores are standardized to a “50-10” scale with the mean score equal to 50 for the general U.S. population, and the standard deviation equal to a 10-unit difference. Similar scoring schemes have been used for presentation and interpretation of the scores on the eight dimensions as well.

The advantages of the SF-36 include the measurement of health status across several dimensions, brevity, and ease of administration in both interviewer- and self-administered settings, and the ability to measure health status in a range where changes and effects are most likely to be detected. Limitations include the lack of condition specificity. It has been shown that disease specific instruments outperform the SF-36 when the
primary focus is on a particular pathologic process (e.g., inflammatory bowel and coronary artery diseases) (Guyatt, 1989; Spertus, 1995).

STANDARD ASSESSMENT TOOL WEB SITES

- www.rand.org
- www.sf-36.com
- www.outcomes-trust.org/instruments
- www.qmlmed.org/SF-36

STANDARD HEALTH ASSESSMENT TOOLS (See Appendix B)

REFERENCES

AA. Provide Patient Education

OBJECTIVE

Provide health education to patient and family.

ANNOTATION

Patient Education is one of the most important responsibilities of the clinician. It is facilitated by attention to the patient’s expectations, beliefs, and decisions.

Patients bring a set of beliefs about themselves and the meaning of their symptoms and environmental exposures into encounters with their clinician. Patient’s expectations of illness and the consequences of exposures may differ significantly from scientific models. The goals of the clinician should include attempting to understand the patient's beliefs, informing the patient about pertinent scientific information, and establishing a collaborative and negotiated understanding upon which further communication and work can be based. Some forms of patient education may be more effective if provided by other members of the health care team or in a group setting.

BB. Are There Indications for Collaboration with a Deployment Health Clinical Center (DHCC)?

OBJECTIVE

Determine whether collaboration with a DHCC will aid in the treatment of the patient’s diagnosed illness.

ANNOTATION

Referral centers have been designated in both DoD and VHA facilities. Consultation with these centers offers the clinician and patient access to clinicians with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

If the clinical evaluation reveals a well-defined diagnosis with a widely accepted treatment protocol, and the patient is willing to accept this diagnosis as the cause of signs or symptoms, the clinician should begin therapy at the local facility. The clinician should attempt to reach an agreement with the patient on an appropriate interval of time to reassess signs, symptoms, and concerns and jointly determine whether further evaluation is necessary. The clinician should consider collaboration with, and the possible referral to, a DHCC to ensure that deployment-related health concerns receive full consideration.

If the clinical evaluation reveals a diagnosis or disease entity that is newly defined or the effective treatment protocol has not been established for the diagnosis, the clinician and patient may benefit from collaboration with a DHCC. Collaboration may occur through in-person, telephonic, or other written communication depending on the level of clinical urgency. Consultation with these centers offers the clinician and patient access to practitioners with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

REFERENCES


CC. Establish Contact and Collaborate with a Deployment Health Clinical Center (DHCC)

OBJECTIVE

Contact and collaborate with the assistance of a DHCC to manage complicated deployment-related health care concerns.

ANNOTATION

Referral centers have been designated in both DoD and VHA facilities. Consultation with these centers offers the health care provider and patient access to clinicians with special expertise and experience, entry into approved clinical trials, and diagnostic testing and evaluation that may not be available locally or at other referral centers.

Walter Reed Army Medical Center
Deployment Health Clinical Center
Bldg. 2, 3rd Floor, Room 3G04
6900 Georgia Avenue NW
Washington, D.C. 20307-5001

Phone: 202.782.6563
Fax: 202.782.3539
Toll Free Help Line: 866.559.1627
Email: pdhealth@amedd.army.mil

DD. Follow-Up as Indicated

OBJECTIVE

Assure the patient's current deployment related health concern is resolved.

ANNOTATION

As part of the overall treatment plan, the clinician should continue to provide patient instruction and monitor the course of the patient’s illness for the effectiveness of treatment and potential identification of new concerns in each follow-up appointment. The clinician and patient should determine the frequency of visits based on clinical indications and patient need.

The clinician should match the patient’s diagnosis with the specific deployment event when possible and report deployment related health concerns, as appropriate.
APPENDIX A

CLINICAL PRACTICE GUIDELINE FOR POST-DEPLOYMENT HEALTH EVALUATION AND MANAGEMENT

LIST OF PARTICIPANTS
Appendix A: List of Participants

Anne Albert, CAPT, PA-C, MPH, USN
Physician Assistant
25711 Tonganoxie Road
Fort Leavenworth, KS 66048
Ph: (913) 684-6186
Fax: (913) 684-6128
E-mail: lshealy@lvnworth.com

John Barrett, MD, CPT, MC
Staff Family Physician and Faculty Development Fellow
Madigan Army Medical Center
Tacoma, WA 98431
Ph: (253) 968-3128/2065
Fax: (253) 968-2608
E-mail: john.barret@nw.amedd.army.mil

David J. Belfie, MD, MC, Maj, USAF
Orthopedic Surgeon
2050A Second Street, SE
Kirtland AFB, NM 87117-5522
Ph: (505) 846-3157
Fax: (505) 846-3154
E-mail: belfie.david@kafb.af.mil

Dana Bradshaw, MD, MPH, Col, USAF
Chief, Preventive Medicine
Air Force Medical Operations Agency, OTSG
110 Luke Avenue, Room 405
Bolling AFB, DC 20332-7050
Ph: (202) 767-4286
Fax: (202) 404-8089
E-mail: dana.bradshaw@usafsg.bolling.af.mil

Mark Brown, PhD
Director, Environmental Agents Service
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420
Ph: (202) 273-9400
Fax: (202) 273-9400
E-mail: mbrown1@mail.va.gov

Scott F. Cameron, Col
Director, Medical Policy,
Canadian Forces
1745 Alta Vista Drive, Room 210
K1A0K6
Ottawa, Ontario Canada
Ph: (613) 945-6704
Fax: (613) 945-6745
E-mail: cameronfam@home.com

Samar DeBakey, MD
Principal
Birch & Davis Associates, Inc.
Three Skyline Place, Suite 600
5201 Leesburg Pike
Falls Church, VA 22041
Ph: (703) 998-4827
Fax: (703) 820-7363
E-mail: sdebakey@birchdavis.com

Kevin Delaney
Risk Communication/CHPPM
USACHPPM
Attn: MCHB-TS-HER
Aberdeen Proving Grounds, MD 21010
Ph: (410) 436-5217
Fax: (410) 436-8170
E-mail: kevin.delaney@apg.amedd.army.mil

W. J. Coker, MD
Chief, Flight Medicine
RAF/USAF Exchange Officer
AFMOA, 110 Luke Avenue
Bolling AFB, DC 20332
Ph: (202) 767-4200
Fax: (202) 404-8089
E-mail: bill.coker@usafsg.bolling.af.mil

Tim Corcoran, MD, LtCol, USAF, MC, FS
Office of the Assistant Secretary of Defense (HA)
Clinical and Program Policy
Skyline 5, Suite 601
5111 Leesburg Pike
Falls Church, VA 22041-3206
Ph: (703) 681-1703 ext. 5237
Fax: (703) 958-4136
E-mail: timothy.corcoran@ha.osd.mil

Jeffrey Clark, MD, LTC, USA
Primary Care
WAMC-Ft. Bragg
Fort Bragg, NC 29310
Ph: (910) 907-6000
Fax: (910) 907-8651
E-mail: jeffrey.clark@na.amedd.army.mil

Eric Chumbley, MD, USAFMC, PCSM
PCM/Sports Medicine
Trainee Health Flight, 59th AMDS
1515 Truemper Street
Lackland AFB, TX 78236
Ph: (210) 292-4160
Fax: (210) 292-4021
E-mail: eric.chumbley@59mdw.whmc.af.mil
Appendix A: List of Participants

Kathryn J. Dolter, RN, PhD, LTC, ANC, USA
Chief, Outcomes Management
Quality Management
US Army Medical Command
2050 Worth Road, Suite 10
Fort Sam Houston, TX 78234
Ph: (210) 221-6195
Fax: (210) 221-7118
E-mail: Kathryn.dolter@cen.amedd.army.mil

Charles C. Engel, Jr., MD, LTC, MC, USA
Chief, Deployment Health Clinical Center
Walter Reed Army Medical Center
Building 2, Ward 64, Room 6441
6700 Georgia Avenue, NW
Washington, DC 20307
Ph: (202) 782-8064
Fax: (202) 782-3539
E-mail: cengel@pobox.com
cengel@usuhs.mil
charles.engel@amedd.army.mil

Rosalie Fishman, RN, MSN, CPHQ
Clinical Coordinator
Birch & Davis Associates, Inc.
8905 Fairview Road
Silver Spring, MD 20910
Ph: (301) 650-0218
Fax: (301) 650-0398
E-mail: rfishman@birchdavis.com

Allan Forte, PAC
VAMC Persian Gulf Coordinator
50 Irving Street, NW
Washington, DC 20422
Ph: (202) 745-8145
Fax: (202) 745-8673
E-mail: VHA-Wash.forteAU@mail.va.gov

Arnold B. Gorin, MD
VAMC
2002 Holcombe Boulevard
Houston, TX 77030-4298
Ph: (713) 794-7668/8725
Fax: (713) 794-7295
E-mail: Gorin.ArnoldB@med.va.gov

John Graham, COL
British Liaison Officer (Gulf Health)
Public Health Medicine
Interagency Support Office (13H)
810 Vermont Avenue, NW
Washington, DC 20420
Ph: (202) 273-9986
Fax: (202) 273-9912
E-mail: john.graham@mail.va.gov

Ronald C. Hamm, MD (WLA VAMC)
Occupational Medicine
VA Greater Los Angeles Healthcare System
West Los Angeles Campus
11301 Wilshire Boulevard
Los Angeles, CA 90073
Ph: (310) 268-3522 or 3520
Fax: (310) 268-4980
E-mail: Hamm.R@West-LA.VA.GOV

Michael Hodgson, MHP (136)
Director, Occupational Health Program
810 Vermont Avenue, NW
Washington, DC 20420
Ph: (202) 273-8579
Fax: (202) 273-9080
E-mail: muh7@mail.va.gov

Kenneth Hoffman, MD, MPH, COL, MC, USA
Medical Director, Military and Veterans Health Coordinating Board
Preventive Medicine/Psychiatry—Mail Stop 13H
810 Vermont Avenue, NW
Washington, DC 20420
Ph: (202) 273-9897/9895
Fax: (202) 273-9912
E-mail: kenneth.hoffman@mail.va.gov

Steven Humburg, MD, Lt Col, USAF
Family Practice (PCM)
Five Skyline Place, Suite 810
5111 Leesburg Pike
Falls Church, VA 22041-3206
Ph: (703) 681-1703
Fax: (703) 681-3658
E-mail: Steven.Humburg@ha.osd.mil
Appendix A: List of Participants

Kenneth C. Hyams, MD, MPH
CAPT, MC, USN
Director, Epidemiology Division
Naval Medical Research Center
503 Robert Grant Avenue
Walter Reed Army Medical Center Annex
Washington, DC  20307-5100
Ph:  (301) 319-7645
Fax:  (301) 319-7679
E-mail: hyamsk@nmripo.nmri.nnmc.navy.mil

Thomas Irvin, LTC, USA
SG Consultant, Rheumatology
Madigan Army Medical Center
Tacoma, WA  98431
Ph:  (253) 968-2484
Fax:  (253) 968-2288
E-mail: toimirvin@hotmail.com

Jeffrey Jackson, MD, MAJ
Director, General Medicine Fellowship
Department of Medicine, USUHS
Bethesda, MD  20814
Ph:  (202) 782-4039
Fax:  (202) 782-7363
E-mail: jejackson@usuhs.mil

John E. Kraemer, MHS
Senior Program Analyst
Environmental Agents Service (131)
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC  20420
Ph:  (202) 273-8462
Fax:  (202) 273-9079
E-mail: john.e.kraemer@mail.va.gov

Steve Krivda, MD, LTC, USA
Dermatology
Walter Reed Army Medical Center
6700 Georgia Avenue, NW
Washington, DC  20307
Ph:  (202) 782-6173
Fax:  (202) 782-9118
E-mail: krivdas@aol.com

Lynn Leventis, MD, CDR, USN
Staff OB/GYN NHCP
Naval Hospital–Camp Pendleton
4601 Third Street
La Mesa, CA  91941
Ph:  (760) 725-1466 (secretary)
(760) 725-0979 (office)
Pager:  (760) 439-7376
Fax:  (760) 725-0469
E-mail: LLeve13028@aol.com

Greg Martin, MD, CDR, USN
Head of Infectious Diseases Division
National Naval Medical Center
8901 Wisconsin Avenue
Bethesda, MD  20889
Ph:  (301) 295-4237/38
Fax:  (301) 295-2992
E-mail: gjmartin@bth12.med.navy.mil

Meg McCormack, PA
VAMC
508 Fulton Street
Durham, NC  27705
Ph:  (919) 286-6963
Fax:  (919) 416-5881
E-mail: mccormack.meg@durham.va.gov

Kevin Mulligan, Lt Col, USAF
AF/SG Consultant for Clinical Psychology
89th MDG/SGOHY
1040 Boston Road
Andrews AFB, MD  20762-6600
Ph:  DSN 857-8942, Com:  (240) 857-8942
Fax:  DSN 858-6078, Com:  (240) 857-6078
E-mail: mullik@mgmc.af.mil

Katharine Murray, RN
Senior Consultant
Birch & Davis Associates, Inc.
Three Skyline Place, Suite 600
5201 Leesburg Pike
Falls Church, VA  22041
Ph:  (703) 575-4716
Fax:  (703) 820-7363
E-mail: kmurray@birchdavis.com
Appendix A: List of Participants

James R. Riddle, DVM, MPH, Lt Col, USAF, BSC
Program Director, Military Public Health
Office of the Assistant Secretary of Defense (HA)
Clinical and Program Policy
Five Skyline Place, Suite 810
5111 Leesburg Pike
Falls Church, VA 22041-3206
Ph: (703) 681-1703
Fax: (703) 681-3658
E-mail: James.Riddle@ha.osd.mil

Michael Roy, MD, MAJ, USA
Internal Medicine
Department of Medicine, USUHS
Bethesda, MD 20814
Ph: (301) 295-9601
Fax: (301) 295-3557
E-mail: mroy@usuhs.mil

Margaret Ryan, MD, MPH, LCDR, MC, USN
Occupational Medicine, Emerging Illness Division
Naval Health Research Center
P.O. Box 85122
San Diego, CA 92186-5122
Ph: (619) 553-8097
Fax: (619) 553-7601
E-mail: ryan@nhrc.navy.mil

James K. Schmitt, MD
Hunter Holmes McGuire VAMC
1201 Broad Rock Boulevard
Richmond, VA 23249
Ph: (804) 675-5426
Fax: (804) 675-5847
E-mail: schmitt.jk@richmondva.gov

Jay Shapiro, MD
(Army Civilian/Navy Reservist)
Internal Medicine-Endocrinology
Director-Clinical Evaluation Program
Walter Reed Army Medical Center, Room 6433
6700 Georgia Avenue, NW
Washington, DC 20307-5001
Ph: (202) 782-8933
Fax: (202) 782-3539
E-mail: jay.shapiro@na.amedd.army.mil

Kelly R. Spearman
Environmental Scientist/Risk Communication
USACHPPM
Building 1675
5158 Blackhawk Road
APG, MD 21010
Ph: (410) 436-7710
Fax: (410) 436-8170
E-mail: Kelly.Spearman@amedd.army.mil

Janet Spinks, RN, MS, CPHQ
Senior Consultant
Birch & Davis Associates, Inc.
8905 Fairview Road
Silver Spring, MD 20910
Ph: (301) 650-0285
Fax: (301) 650-0398
E-mail: jspins@birchdavis.com

Richard Stoltz, CDR, USN
Psychology
2300 E Street, NW
Washington, DC 20372
Ph: (202) 762-0926
Fax: (202) 726-3133
E-mail: RFSoltlz@us.med.navy.mil

Oded Susskind, MPH
P.O. Box 112
Brookline, MA 02146
Ph: (617) 232-3558
Fax: (617) 713-4431
E-mail: oded@tiac.net

Robert B. Swatek, PA
Colmery-O’Neil VAMC
2200 Gage Boulevard
Topeka, KS 66622
Ph: (785) 650-3111 ext. 2168
Fax: (785) 950-3111 ext. 2152
E-mail: rsLatek@aol.com
swatek.robert@topeka.va.gov

Harry A. (Chip) Taylor, MD, CDR, MC, USN
Bureau of Medicine and Surgery
(MED 32DM)
2300 E Street, NW
Washington, DC 20372
Ph: (202) 762-3116
Fax: (202) 762-3133
E-mail: HATaylor@us.med.navy.mil
David Trump, MD, MPH, MC, CAPT, USN
Program Director, Preventive Medicine and Surveillance
Office of the Assistant Secretary of Defense (HA)
Health Operations Policy
Five Skyline Place, Suite 810
5111 Leesburg Pike
Falls Church, VA 22041-3206
Ph: (703) 681-1711
Fax: (703) 681-3687
E-mail: David.Trump@ha.osd.mil

Janet Viola, PsyD, BSN, MAJ, ANC, USA
Nurse Educator/Psychologist
Deployment Health Clinical Center
Director-Clinical Evaluation Program
Walter Reed Army Medical Center
6700 Georgia Avenue, NW
Washington, DC 20307
Ph: (202) 782-8946
Fax: (202) 782-3539
E-mail: janet.viola@amedd.army.mil

Debby Walder, RN MSN
Performance Management Facilitator
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20320
Ph: (202) 273-8336
Fax: (202) 273-9030
E-mail: debby.walder@mail.va.gov

Joanne Ward, CANP
Nurse Practitioner
Baltimore VAMC
10 North Greene Street
Baltimore, MD 21201-1524
Ph: (410) 605-7000, ext. 50
Fax: (410) 605-7912
E-mail: ward.joanne_c@baltimore.va.gov

Christine D. Winslow, RN
Senior Consultant
Birch & Davis Associates, Inc.
Three Skyline Place, Suite 600
5201 Leesburg Pike
Falls Church, VA 22041
Ph: (703) 998-4981
Fax: (703) 820-7363
E-mail: cwinslow@birchdavis.com
APPENDIX B

CLINICAL PRACTICE GUIDELINE FOR POST-DEPLOYMENT HEALTH EVALUATION AND MANAGEMENT

THE DEPARTMENT OF DEFENSE COMPREHENSIVE CLINICAL EVALUATION PROGRAM AND THE DEPARTMENT OF VETERANS AFFAIRS GULF WAR HEALTH EXAMINATION REGISTRY
The Department of Veterans Affairs (VA) *Gulf War Health Examination Registry* (PGR) was authorized on November 4, 1992, by Public Law 102-585 (Title VII), the Persian Gulf War Veterans Health Status Act. The PGR offers every Gulf War veteran a complete physical examination with basic laboratory studies. Additionally, a complete medical history is obtained and documented in the veteran's medical record. The Department of Defense (DoD), Office of Health Affairs (HA), instituted the *Comprehensive Clinical Evaluation Program* (CCEP) on June 7, 1994. The CCEP expanded upon routine medical care of Gulf War veterans and provided a more systematic evaluation strategy modeled after the VA PGR.

The standard VA registry clinical examination protocol consists of the laboratory tests and consultations that clinicians use to evaluate the symptoms reported by Gulf War veterans during their initial physical examination. This baseline examination protocol elicits information about symptoms and exposures and directs initial laboratory studies, including blood count, urinalysis, and a set of blood chemistry tests. VA expanded this standard protocol as more experience was gained about the health problems of Gulf War veterans. In addition to core laboratory screening, clinicians order additional tests and specialty consultations, as clinically indicated, in an attempt to reach a diagnosis for every participating veteran.

If a Gulf War veteran's symptoms remain unexplained after the initial examination, the VA provides an expanded assessment protocol, which is a set of clinical guidelines for evaluating ill-defined or unexplained illnesses. For this purpose, an "unexplained illness" is characterized as one or more symptoms which do not conform to a characteristic clinical presentation, allowing for a diagnosis, but which appear to be causing a decline in the veteran's functional status or quality of life. This set of extended clinical guidelines—the Uniform Case Assessment Protocol (UCAP)—suggests 22 additional tests and auxiliary specialty consultations, and outlines supplementary diagnostic procedures based on the specific symptoms of the veteran and the clinical judgment of the registry clinician. The UCAP was originally developed in 1993 by the VA and is now used in both the VA and the DoD Gulf War clinical registries.

The CCEP was developed to provide a systematic and uniform medical evaluation at 184 military health care facilities located in 39 States, eight foreign countries, and two territories. To institute the CCEP, organizational meetings were held with senior medical officials from all military services; health care officials of the VA were consulted to ensure that the CCEP and the PGR collected comparable data and four instructional meetings were held with military health care personnel to review CCEP procedures and provide clinical and research information related to Gulf War health questions. A special committee of the Institute of Medicine (IOM) reviewed and monitored the CCEP process, including the design and implementation of the program and interpretation of the initial findings.

By January 1999, systematic clinical examinations were completed on approximately 100,000 U.S. Gulf War veterans. Both DoD and VA registry participants report a broad range of symptoms that span a variety of organ systems. The most common primary symptoms reported are fatigue, joint pain, headache, memory loss, sleep disturbance, rash, and difficulty concentrating. The most common diagnoses in the VA’s registry are the same as in the DoD Registry: psychological conditions, musculoskeletal system diseases, and the category of symptoms, signs, and ill-defined conditions.

Every U.S. war since the Civil War has produced chronic, enigmatic, and disabling post-war physical symptoms among veterans. Unexplained physical symptoms became an especially contentious issue for veterans, policy makers, scientists, and clinicians after the Gulf War. Over 43% of the first 18,000 veterans seeking DoD care for Gulf War health concerns were diagnosed with an ill-defined condition, and nearly 18% had an ill-defined condition as a primary diagnosis. A recent Center for Disease Control and Prevention (CDC) study found that 45% of Gulf War veterans and 15% of non-deployed Gulf War era veterans met the criteria for chronic multi-symptom illnesses.

The DoD and VA asked the IOM to evaluate the adequacy of the PGR and the CCEP, since both evaluation programs have evolved over time. The IOM endorsed the systematic, comprehensive set of clinical practice guidelines set forth in the CCEP and PGR. These guidelines have assisted clinicians in the determination of specific diagnoses for thousands of patients. However, the IOM emphasized the need to focus care at the primary care level, both to enhance the continuity of care and foster the establishment of ongoing therapeutic...
relationships. In addition, research has shown that a high prevalence of psychosocial problems occur among deployed forces, leading the IOM to recommend the development of standardized guidelines for screening, assessing, evaluating, and treating these patients. The IOM also recommended the development of explicit guidelines for identifying patients in the primary care setting who would benefit from a psychiatric evaluation. The IOM recommendations are based on research findings, lessons learned from PGR, CCEP, and UCAP implementation, and advances made in the field of clinical practice evaluation.

The IOM emphasized that the experiences after the Vietnam and Gulf Wars demonstrated that the post-deployment period is crucial for carrying out medical screening and evaluation and providing appropriate care for returning service members. In addition, DoD and VA clinicians identified the need for standardized guidelines for screening, assessing, evaluating, and treating patients returning from deployment who may have deployment related health concerns. The IOM also felt that standardized guidelines for screening, assessing, evaluating, and treating patients were especially important to VA in that the Veterans Benefits Improvement Act of 1998 (Public Law 105-368) provides that service members will be eligible for medical care for a period of 2 years after their return from service in a theater of combat operations during a period of war or hostilities. The provision of this care without the need for establishing service-connection provides a valuable opportunity to ascertain the health needs of this population, including those related to medically unexplained symptoms. Rather than naming a special deployment-specific registry, the IOM concluded that veterans should receive care as needed, with evaluation, follow-up, and patient management focused in the primary care setting.

Congress also expressed concern and provided legislation mandating establishment of DoD Deployment Health Centers and VA Center(s) for the Study of War-Related Illnesses and Post-Deployment Health Concerns. These DoD and VA Centers will serve as loci of activity for post-deployment health concerns and support continued development of applicable evidence-based solutions for post-deployment medical concerns. The DoD Deployment Health Clinical Center, located at Walter Reed Army Medical Center, has the mission and responsibility to:

1. Maintain and improve primary and tertiary health care for individuals with deployment-related health concerns.
2. Maintain, improve, and explore the use of health information systems to improve the continuum of deployment related health care the military offers and military medicine's capacity for early identification of emerging deployment related illnesses.
3. Develop a program of militarily relevant clinical research to include multi-center clinical trials, risk communication strategies, and clinical health services research.
4. Assist in developing, implementing, and sustaining an evidence-based military medical deployment health education program to increase the volume, quality, rate, and ease of use of clinically relevant research knowledge disseminated to military health care providers regarding deployment related health care and communication strategies.

The DoD and Veterans Health Affairs (VHA) convened a group of experts, including the VHA Field Advisory Group and DoD Service Champions nominated by each of the Surgeons General, to review the IOM recommendations and develop a plan for implementation. The challenge for the work group was to develop an evidence-based post-deployment health clinical evaluation program focused in the primary care setting. The group consensus was to pursue the development of an evidence-based clinical practice guideline (CPG) to assist clinicians in the primary care setting in screening, evaluating, and managing the post-deployment health concerns of service members and develop specific treatment CPGs for those conditions recognized as most important.
APPENDIX C

CLINICAL PRACTICE GUIDELINE FOR POST-DEPLOYMENT HEALTH EVALUATION AND MANAGEMENT

STANDARD HEALTH ASSESSMENT TOOLS
# Brief Patient Health Questionnaire™ (PHQ-Brief)

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability unless you are requested to skip a question.

Name______________________   Age_____      Sex: □ Female  □ Male   Today’s Date________

1. Over the last 2 weeks, how often have you been bothered by any of the following problems? Not at all   Several     More than half     Nearly
days     the days     every
day

a. Little interest or pleasure in doing things
b. Feeling down, depressed, or hopeless
c. Trouble falling or staying asleep, or sleeping too much
d. Feeling tired or having little energy
e. Poor appetite or overeating
f. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down
g. Trouble concentrating on things, such as reading the newspaper or watching television
h. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual
i. Thoughts that you would be better off dead, or of hurting yourself in some way

2. Questions about anxiety.

a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?

If you checked “NO”, go to question #3.

b. Has this ever happened before?
c. Do some of these attacks come suddenly out of the blue — that is, in situations where you don’t expect to be nervous or uncomfortable?
d. Do these attacks bother you a lot or are you worried about having another attack?
e. During your last bad anxiety attack, did you have symptoms like shortness of breath, sweating, your heart racing or pounding, dizziness or faintness, tingling or numbness, or nausea or upset stomach?

3. If you checked off any problems on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

<table>
<thead>
<tr>
<th></th>
<th>Not difficult at all</th>
<th>Somewhat difficult</th>
<th>Very difficult</th>
<th>Extremely difficult</th>
</tr>
</thead>
</table>

FOR OFFICE CODING: Maj Dep Syn if answers to #1a or b and five or more of #1a-i are at least “More than half the days” (count #1i if present at all). Other Dep Syn if #1a or b and two, three, or four of #1a-i are at least “More than half the days” (count #1i if present at all). Pan Syn if all of #2a-e are “YES.”
4. In the last 4 weeks, how much have you been bothered by any of the following problems?
   a. Worrying about your health
   b. Your weight or how you look
   c. Little or no sexual desire or pleasure during sex
   d. Difficulties with husband/wife, partner/lover, or boyfriend/girlfriend
   e. The stress of taking care of children, parents, or other family members
   f. Stress at work outside of the home or at school
   g. Financial problems or worries
   h. Having no one to turn to when you have a problem
   i. Something bad that happened recently
   j. Thinking or dreaming about something terrible that happened to you in the past - like your house being destroyed, a severe accident, being hit or assaulted, or being forced to commit a sexual act

5. In the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone, or has anyone forced you to have an unwanted sexual act?
   NO
   YES

6. What is the most stressful thing in your life right now? ______________________________________
   ______________________________________________________________________________________

7. Are you taking any medicine for anxiety, depression or stress?
   NO
   YES

8. FOR WOMEN ONLY: Questions about menstruation, pregnancy and childbirth.
   a. Which best describes your menstrual periods?
      - Peri  ods are unchanged
      - No periods because pregnant or recently gave birth
      - Peri  ods have become irregular or changed in frequency, duration or amount
      - No periods for at least a year
      - Having periods because taking hormone replacement (estrogen) therapy or oral contraceptive
   b. During the week before your period starts, do you have a serious problem with your mood - like depression, anxiety, irritability, anger or mood swings
   c. If YES: Do these problems go away by the end of your period?
   d. Have you given birth within the last 6 months?
   e. Have you had a miscarriage within the last 6 months?
   f. Are you having difficulty getting pregnant?
**Patient Health Questionnaire™ (PHQ)**

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability unless you are requested to skip over a question.

Name______________________   Age____   Sex: □ Female   □ Male   Today’s Date________

1. During the last 4 weeks, how much have you been bothered by any of the following problems?  
   - a. Stomach pain
   - b. Back pain
   - c. Pain in your arms, legs, or joints (knees, hips, etc)
   - d. Menstrual cramps or other problems with your periods
   - e. Pain or problems during sexual intercourse
   - f. Headaches
   - g. Chest pain
   - h. Dizziness
   - i. Fainting spells
   - j. Feeling your heart pound or race
   - k. Shortness of breath
   - l. Constipation, loose bowels, or diarrhea
   - m. Nausea, gas, or indigestion

<table>
<thead>
<tr>
<th>Not bothered</th>
<th>Bothered a little</th>
<th>Bothered a lot</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

2. Over the last 2 weeks, how often have you been bothered by any of the following problems?  
   - a. Little interest or pleasure in doing things
   - b. Feeling down, depressed, or hopeless
   - c. Trouble falling or staying asleep, or sleeping too much
   - d. Feeling tired or having little energy
   - e. Poor appetite or overeating
   - f. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down
   - g. Trouble concentrating on things, such as reading the newspaper or watching television
   - h. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual
   - i. Thoughts that you would be better off dead or of hurting yourself in some way

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

FOR OFFICE CODING: Som Dis if at least three of #1a-m are “a lot” and lack an adequate biol explanation. Maj Dep Syn if answers to #2a or b and five or more of #2a-i are at least “More than half the days” (count #2i if present at all). Other Dep Syn if #2a or b and two, three, or four of #2a-i are at least “More than half the days” (count #2i if present at all).
3. Questions about anxiety.
   a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?
      \[
      \begin{array}{c|c|c}
        & NO & YES \\
        \hline
        \text{If you checked “NO”, go to question #5.} & & \\
        \hline
        \text{b. Has this ever happened before?} & & \\
        \text{c. Do some of these attacks come suddenly out of the blue} & & \\
        \text{— that is, in situations where you don’t expect to be nervous or uncomfortable?} & & \\
        \text{d. Do these attacks bother you a lot or are you worried about having another attack?} & & \\
      \end{array}
      \]
   
   b. Has this ever happened before?
   c. Do some of these attacks come suddenly out of the blue — that is, in situations where you don’t expect to be nervous or uncomfortable?
   d. Do these attacks bother you a lot or are you worried about having another attack?

4. Think about your last bad anxiety attack.
   a. Were you short of breath?
   b. Did your heart race, pound, or skip?
   c. Did you have chest pain or pressure?
   d. Did you sweat?
   e. Did you feel as if you were choking?
   f. Did you have hot flashes or chills?
   g. Did you have nausea or an upset stomach, or the feeling that you were going to have diarrhea?
   h. Did you feel dizzy, unsteady, or faint?
   i. Did you have tingling or numbness in parts of your body?
   j. Did you tremble or shake?
   k. Were you afraid you were dying?

5. Over the last 4 weeks, how often have you been bothered by any of the following problems?
   a. Feeling nervous, anxious, on edge, or worrying a lot about different things
      \[
      \begin{array}{c|c|c|c}
        & Not at all & Several days & More than half the days \\
        \hline
        \text{If you checked “Not at all”, go to question #6.} & & & \\
        \hline
        \text{b. Feeling restless so that it is hard to sit still} & & & \\
        \text{c. Getting tired very easily} & & & \\
        \text{d. Muscle tension, aches, or soreness} & & & \\
        \text{e. Trouble falling asleep or staying asleep} & & & \\
        \text{f. Trouble concentrating on things, such as reading a book or watching TV} & & & \\
        \text{g. Becoming easily annoyed or irritable} & & & \\
      \end{array}
      \]

FOR OFFICE CODING: Pan Syn if all of #3a-d are ‘YES’ and four or more of #4a-k are ‘YES’. Other Anx Syn if #5a and answers to three or more of #5b-g are “More than half the days”.

Appendix C: Standard Health Assessment Tools
6. Questions about eating.
   a. Do you often feel that you can’t control what or how much you eat? NO YES
   b. Do you often eat, within any 2-hour period, what most people would regard as an unusually large amount of food?

   If you checked ‘NO’ to either #a or #b, go to question #9.
   c. Has this been as often, on average, as twice a week for the last 3 months?

7. In the last 3 months have you often done any of the following in order to avoid gaining weight?
   a. Made yourself vomit?
   b. Took more than twice the recommended dose of laxatives?
   c. Fasted — not eaten anything at all for at least 24 hours?
   d. Exercised for more than an hour specifically to avoid gaining weight after binge eating?

8. If you checked “YES” to any of these ways of avoiding gaining weight, were any as often, on average, as twice a week?

9. Do you ever drink alcohol (including beer or wine)?

   If you checked “NO” go to question #11.

10. Have any of the following happened to you more than once in the last 6 months?
    a. You drank alcohol even though a doctor suggested that you stop drinking because of a problem with your health
    b. You drank alcohol, were high from alcohol, or hung over while you were working, going to school, or taking care of children or other responsibilities
    c. You missed or were late for work, school, or other activities because you were drinking or hung over
    d. You had a problem getting along with other people while you were drinking
    e. You drove a car after having several drinks or after drinking too much

11. If you checked off any problems on this questionnaire, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

    | Not difficult at all | Somewhat difficult | Very difficult | Extremely difficult |
    |---------------------|--------------------|----------------|---------------------|
    |                     |                    |                |                     |

FOR OFFICE CODING: Bul Ner if #6a,b, and-c and #8 are all ‘YES’; Bin Eat Dis the same but #8 either ‘NO’ or left blank. Alc Abu if any of #10a-c is ‘YES’.
12. **In the last 4 weeks,** how much have you been bothered by any of the following problems?  

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not bothered</th>
<th>Bothered a little</th>
<th>Bothered a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Worrying about your health</td>
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<tr>
<td>b. Your weight or how you look</td>
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<td>c. Little or no sexual desire or pleasure during sex</td>
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<td>e. The stress of taking care of children, parents, or other family members</td>
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<td>f. Stress at work outside of the home or at school</td>
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<td>g. Financial problems or worries</td>
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<tr>
<td>h. Having no one to turn to when you have a problem</td>
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<tr>
<td>i. Something bad that happened recently</td>
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<td>j. Thinking or dreaming about something terrible that happened to you in the past - like your house being destroyed, a severe accident, being hit or assaulted, or being forced to commit a sexual act</td>
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</table>

13. **In the last year,** have you been hit, slapped, kicked or otherwise physically hurt by someone, or has anyone forced you to have an unwanted sexual act?  

NO  YES

14. What is the most stressful thing in your life right now?  

____________________________________________________________________________________

15. Are you taking any medicine for anxiety, depression or stress?  

NO  YES

16. FOR WOMEN ONLY: Questions about menstruation, pregnancy and childbirth.  

<table>
<thead>
<tr>
<th>Question</th>
<th>No periods because pregnant or recently gave birth</th>
<th>Periods have become irregular or changed in frequency, duration or amount</th>
<th>No periods for at least a year</th>
<th>Having periods because taking hormone replacement (estrogen) therapy or oral contraceptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Which best describes your menstrual periods?</td>
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<tr>
<td>Periods are unchanged</td>
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<td>b. During the week before your period starts, do you have a serious problem with your mood - like depression, anxiety, irritability, anger or mood swings?</td>
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<tr>
<td>c. If YES: Do these problems go away by the end of your period?</td>
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<td>d. Have you given birth within the last 6 months?</td>
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<tr>
<td>e. Have you had a miscarriage within the last 6 months?</td>
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<td></td>
</tr>
<tr>
<td>f. Are you having difficulty getting pregnant?</td>
<td>☐</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
# PTSD CheckList – Civilian Version (PCL-C)

Patient’s Name: __________________________________________

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully, put an “X” in the box to indicate how much you have been bothered by that problem in the last month.

<table>
<thead>
<tr>
<th>No.</th>
<th>Response</th>
<th>Not at all (1)</th>
<th>A little bit (2)</th>
<th>Moderately (3)</th>
<th>Quite a bit (4)</th>
<th>Extremely (5)</th>
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<td>1.</td>
<td>Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?</td>
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<td>Being “super alert” or watchful on guard?</td>
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</tbody>
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This is a Government document in the public domain.
# PTSD CheckList – Military Version (PCL-M)

Patient’s Name: __________________________________________

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful military experiences. Please read each one carefully, put an “X” in the box to indicate how much you have been bothered by that problem in the last month.

<table>
<thead>
<tr>
<th>No.</th>
<th>Response:</th>
<th>Not at all (1)</th>
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<td>1.</td>
<td>Repeated, disturbing memories, thoughts, or images of a stressful military experience?</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2.</td>
<td>Repeated, disturbing dreams of a stressful military experience?</td>
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<td>3.</td>
<td>Suddenly acting or feeling as if a stressful military experience were happening again (as if you were reliving it)?</td>
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<td>6.</td>
<td>Avoid thinking about or talking about a stressful military experience or avoid having feelings related to it?</td>
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<td>Avoid activities or situations because they remind you of a stressful military experience?</td>
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### PTSD Checklist – Stressor Specific Version (PCL-S)

The event you experienced was: ______________________________________ on: ______________

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful military experiences. Please read each one carefully, put an “X” in the box to indicate how much you have been bothered by that problem in the last month.

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Instructions for Completing the Questionnaire

Please answer every question. Some questions may look like others, but each one is different. Please take the time to read and answer each question carefully by filling in the bubble that best represents your response.

EXAMPLE

This is for your review. Do not answer this question. The questionnaire begins with the section Your Health in General below.

For each question you will be asked to fill in a bubble in each line:

How strongly do you agree or disagree with each of the following statements?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) I enjoy listening to music. 

b) I enjoy reading magazines.

Please begin answering the questions now.

Your Health in General

1. In general, would you say your health is:

   Excellent  ○  Very good  ○  Good  ○  Fair  ○  Poor  ○

2. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

   a. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

   b. Climbing several flights of stairs

Please turn the page to continue.
3. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?
   a. **Accomplished less** than you would like
   b. Were limited in the **kind** of work or other activities

4. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?
   a. **Accomplished less** than you would like
   b. Didn’t do work or other activities as **carefully** as usual

5. During the **past 4 weeks**, how much did pain interfere with your normal work (including both work outside the home and housework)?
   - Not at all
   - A little bit
   - Moderately
   - Quite a bit
   - Extremely

6. These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks** . . .

<table>
<thead>
<tr>
<th>All of the Time</th>
<th>Most of the Time</th>
<th>A Good Bit of the Time</th>
<th>Some of the Time</th>
<th>A Little of the Time</th>
<th>None of the Time</th>
</tr>
</thead>
</table>
   a. Have you felt calm and peaceful?  |  o  |  o  |  o  |  o  |  o  |  o  |
   b. Did you have a lot of energy?    |  o  |  o  |  o  |  o  |  o  |  o  |
   c. Have you felt downhearted and blue? |  o  |  o  |  o  |  o  |  o  |  o  |

7. During the **past 4 weeks**, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

<table>
<thead>
<tr>
<th>All of the Time</th>
<th>Most of the Time</th>
<th>Some of the Time</th>
<th>A Little of the Time</th>
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</thead>
<tbody>
<tr>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!**

SF-12™ - © RAND Medical Outcomes Trust and John E. Ware, Jr. – All Rights Reserved - Page 2 of 2
Instructions for Completing the Questionnaire

Please answer every question. Some questions may look like others, but each one is different. Please take the time to read and answer each question carefully by filling in the bubble that best represents your response.

EXAMPLE

This is for your review. Do not answer this question. The questionnaire begins with the section Your Health in General below.

For each question you will be asked to fill in a bubble in each line:
How strongly do you agree or disagree with each of the following statements?

<table>
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<th>Strongly Agree</th>
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<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

Please begin answering the questions now.

Your Health in General

general, would you say your health is:

Excellent
Very good
Good
Fair
Poor

1. Compared to one year ago, how would you rate your health in general now?

Much better now than one year ago
Somewhat better now than one year ago
About the same as one year ago
Somewhat worse now than one year ago
Much worse now than one year ago

Please turn the page to continue.
2. The following items are about activities you might do during a typical day. **Does your health now limit you** in these activities? If so, how much?

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Yes, Limited A Lot</th>
<th>Yes, Limited A Little</th>
<th>No, Not Limited At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Vigorous activities</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Moderate activities</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c. Lifting or carrying groceries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. Climbing several flights of stairs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>e. Climbing one flight of stairs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>f. Bending, kneeling, or stooping</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>g. Walking more than one mile</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>h. Walking several blocks</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>i. Walking one block</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>j. Bathing or dressing yourself</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

- **YES**
- **NO**

<table>
<thead>
<tr>
<th>Problem Description</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cut down on the amount of time you spend on work or other activities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Accomplished less than you would like</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c. Were limited in the kind of work or other activities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. Had difficulty performing the work or other activities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>e. Activities (for example, it took extra time)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

- **YES**
- **NO**

<table>
<thead>
<tr>
<th>Problem Description</th>
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<td>c. Didn't do work or other activities as carefully as usual</td>
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**Please turn the page to continue.**
5. During the past 4 weeks, how much did your physical health or emotional problems interfere with your normal work social activities with family, friends, neighbors, or groups?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little bit</th>
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<tr>
<td></td>
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</table>

6. How much bodily pain have you had during the past 4 weeks?

<table>
<thead>
<tr>
<th>None</th>
<th>Very Mild</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Very Severe</th>
</tr>
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<tr>
<td></td>
<td></td>
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7. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

<table>
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   a. Did you feel full of pep?
   b. Have you been a very nervous person?
   c. Have you felt so down in the dumps nothing could cheer you up?
   d. Have you felt calm and peaceful?
   e. Did you have a lot of energy?
   f. Have you felt downhearted and blue?
   g. Did YOU FEEL WORN OUT?
   h. Have you been a happy person?
   i. Did you feel tired?
   j. I seem to get sick a little easier than other people
   k. I am as healthy as anybody I know
   l. I expect my health to get worse
   m. My health is excellent

9. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

<table>
<thead>
<tr>
<th>All of the Time</th>
<th>Most of the Time</th>
<th>Some of the Time</th>
<th>A Little of the Time</th>
<th>None of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

11. HOW TRUE OR FALSE IS EACH OF THE FOLLOWING STATEMENTS FOR YOU?

<table>
<thead>
<tr>
<th>Definitely True</th>
<th>Mostly True</th>
<th>Don’t know</th>
<th>Mostly False</th>
<th>Definitely False</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!


Public Law 102-585, Title VII. *Persian Gulf War Veterans Health Status Act.*


Title 10 United States Code, Armed Forces. Chapter 55. *Medical and Dental Care.*

Title 38 United States Code, Veterans Benefits, Chapter 17. *Hospital, Nursing Home, Domiciliary, and Medical Care.*


APPENDIX E

CLINICAL PRACTICE GUIDELINE FOR
POST-DEPLOYMENT HEALTH
EVALUATION AND MANAGEMENT

ACRONYMS
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABG</td>
<td>Arterial Blood Gas</td>
</tr>
<tr>
<td>ANA</td>
<td>Antinuclear Antibody</td>
</tr>
<tr>
<td>BAER</td>
<td>Brainstem Auditory Evoked Response</td>
</tr>
<tr>
<td>BLS</td>
<td>Biosafety Level</td>
</tr>
<tr>
<td>BPS</td>
<td>Bio-Psycho-Social</td>
</tr>
<tr>
<td>BRFSS</td>
<td>Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td>BSI</td>
<td>Brief Symptom Inventory</td>
</tr>
<tr>
<td>BUN</td>
<td>Blood Urea Nitrogen</td>
</tr>
<tr>
<td>CBC</td>
<td>Complete Blood Count</td>
</tr>
<tr>
<td>CCEP</td>
<td>Comprehensive Clinical Evaluation Program</td>
</tr>
<tr>
<td>CDC</td>
<td>Center for Disease Control and Prevention</td>
</tr>
<tr>
<td>CPG</td>
<td>Clinical Practice Guideline</td>
</tr>
<tr>
<td>CPK</td>
<td>Creatine Phosphokinase</td>
</tr>
<tr>
<td>CRP</td>
<td>C-Reactive Protein</td>
</tr>
<tr>
<td>CT</td>
<td>Computerized Tomography</td>
</tr>
<tr>
<td>DHCC</td>
<td>Deployment Health Clinical Center</td>
</tr>
<tr>
<td>DoD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DX</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
</tr>
<tr>
<td>EGD</td>
<td>Esophagogastroduodenoscopy</td>
</tr>
<tr>
<td>EMG</td>
<td>Electromyelogram</td>
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</tbody>
</table>
ENG  Electronystogmography
ENT  Ears, Nose, and Throat
ESR  Erythrocyte Sedimentation Rate
GI   Gastrointestinal
GYN  Gynecology
HA   Health Affairs
HIV  Human Immunodeficiency Virus
HLA  Human Lymphocyte Antigen
IOM  Institute of Medicine
LIC  Low Intensity Conflict
MCS  Mental Component Score
MeSH Medical Subject Headings
MHS  Military Health System
MRI  Magnetic Resonance Imaging
MSLT Multiple Sleep Latency Test
NAMCS National Ambulatory Medical Care Survey
NCV  Nerve Conduction Velocity
NLM  National Library of Medicine
OB   Obstetrics
PA   Physician Assistant
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>PCL</td>
<td>PTSD Checklist</td>
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<tr>
<td>PCM</td>
<td>Primary Care Manager</td>
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<tr>
<td>PCS</td>
<td>Physical Component Score</td>
</tr>
<tr>
<td>PFT</td>
<td>Pulmonary Function Test</td>
</tr>
<tr>
<td>PGR</td>
<td>Persian Gulf Registry</td>
</tr>
<tr>
<td>PHQ</td>
<td>Patient Health Questionnaire</td>
</tr>
<tr>
<td>PHS</td>
<td>Public Health Service</td>
</tr>
<tr>
<td>PPD</td>
<td>Purified Protein Derivative</td>
</tr>
<tr>
<td>PRIME-MD</td>
<td>Primary Care Evaluation of Mental Disorders</td>
</tr>
<tr>
<td>PRN</td>
<td>Pro re nata (as needed)</td>
</tr>
<tr>
<td>PSG</td>
<td>Polysomnography</td>
</tr>
<tr>
<td>PSTF</td>
<td>Preventive Services Task Force</td>
</tr>
<tr>
<td>PTSD</td>
<td>Posttraumatic Stress Disorder</td>
</tr>
<tr>
<td>QE</td>
<td>Quality of Evidence</td>
</tr>
<tr>
<td>RA</td>
<td>Rheumatoid Arthritis</td>
</tr>
<tr>
<td>SF</td>
<td>Short-Form</td>
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<tr>
<td>SME</td>
<td>Subject Matter Expert</td>
</tr>
<tr>
<td>SR</td>
<td>Strength of Recommendation</td>
</tr>
<tr>
<td>SSRI</td>
<td>Selective Serotonin Reuptake Inhibitors</td>
</tr>
<tr>
<td>TMA</td>
<td>TRICARE Management Activity</td>
</tr>
<tr>
<td>TSH</td>
<td>Thyroid Stimulating Hormone</td>
</tr>
<tr>
<td>UA</td>
<td>Urinalysis</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>UCAP</td>
<td>Universal Case Assessment Protocol</td>
</tr>
<tr>
<td>USUHS</td>
<td>United States Unified Health Services</td>
</tr>
<tr>
<td>VA</td>
<td>Department of Veterans Affairs</td>
</tr>
<tr>
<td>VAMC</td>
<td>Veterans Affairs Medical Center</td>
</tr>
<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratories</td>
</tr>
<tr>
<td>VHA</td>
<td>Veterans Health Affairs</td>
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</table>