Chapter 30

MEDICAL READINESS

CHRISTOPHER W. BUNT, MD,* AND BONNIE SANCHEZ†

*Lieutenant Colonel, US Air Force Reserves, Medical Corps; Associate Professor, Department of Family Medicine, Medical University of South Carolina, Charleston, South Carolina

†Senior Master Sergeant, US Air Force; Air Force District of Washington Functional Manager, Malcolm Grow Medical Clinics and Surgery Center, Joint Base Andrews, Maryland

INTRODUCTION

Medical readiness involves a series of assessments to ensure that uniformed service members (USMs) are free of health-related conditions that endanger others or limit their ability to achieve their assigned mission. Medical readiness also refers to the ability of medical units in each service to prepare their medical personnel to provide healthcare to military members at home and abroad. The role of the military medical officer (MMO) is to both support and advise the commanding officer (CO). While the CO is ultimately responsible for military and medical readiness accountability, it is the MMO's duty to lead the team that will screen, evaluate, and treat members as needed per mission requirements and the CO's directives. This chapter will examine the physical conditions and procedures essential to medical readiness for the USM.

In 2008, the Institute for Healthcare Improvement introduced three critical objectives in healthcare provision. Labeled the "Triple Aim," the three objectives are (1) better health, (2) better patient care, and (3) lower costs.[1,2] In 2009, the Department of Defense (DoD) added a fourth objective, medical readiness, and renamed the concept the "Quadruple Aim."[3] DoD healthcare directives and instructions now must always consider their impact on the Quadruple Aim.

Medical readiness is an essential component in the preparation of the USM for deployment. In general, the deployed environment is more taxing to the individual USM and does not have the same medical capabilities as the continental United States (CONUS). This chapter is divided into sections focusing on the aspects of medical readiness that are handled before, during, and after deployment. The term "deployment" encompasses contingency deployments in support of military operations (eg, Operation Enduring Freedom); overseas assignments (outside CONUS); and military operations other than war (eg, humanitarian missions). Multiple areas of readiness overlap, and this chapter presents a framework to assist with information retention. While every aspect of a medical encounter can be essential for the USM's readiness, this chapter's focus will be on the military-unique readiness items. Exhibit 30-1 provides a quick reference checklist for the MMO.

ROLE OF THE MILITARY MEDICAL OFFICER

Predeployment

Predeployment includes the period of time from the USM's entry into military service up through their first deployment. By definition, this period overlaps with the postdeployment period leading up to the USM's second and subsequent deployments. Reviewing the USM's medical history and medical record is the first step in determining their individual medical readiness. From this initial review, recommendations are made about next steps, including prevention, evaluation, and treatment.

Prevention

The first step in ensuring optimal health for all USMs is preventing illness and disability. Prevention is divided into four discrete areas: (1) screening, (2) immunizations, (3) behavioral modifications, and (4) chemoprophylaxis (prophylactic use of medications to prevent illness). Table 30-1 provides examples of each. Of these areas, immunizations and chemoprophylaxis are currently the most evidence-based.[4]

Screening. Screening is the most comprehensive of the four areas of prevention, and includes mental health history, neuropsychological testing, disease surveillance, dental examinations, annual preventive health assessments (PHAs), and occupation-specific examinations (eg, for aviators).

EXHIBIT 30-1

MILITARY MEDICAL OFFICER QUICK REFERENCE MEDICAL FITNESS CHECKLIST

- Periodic health assessment (PHA)
- Disease surveillance (laboratory testing, eg, HIV, TB)
- Routine immunizations
- Chemoprophylaxis (eg, anti-malarials)
- Dental readiness
- Vision readiness
- Hearing readiness
- Baseline neurocognitive assessment (eg, ANAM)

ANAM: Automated Neuropsychological Assessment Metrics
HIV: human immunodeficiency virus
TB: tuberculosis
Adapted from: O'Connor FG, Deuster PA, DeGroot DW, White DW. Medical and environmental fitness. *Mil Med*. 2010;175(8:57):57-64.

TABLE 30-1

PREDEPLOYMENT PREVENTION

Form of Prevention	Examples
Screening	Mental health history: Patient Health Questionnaire-2 (PHQ-2)
	Neuropsychological testing, eg, baseline TBI screens: Automated Neuropsychological Assessment Metrics (ANAM)
	Disease Surveillance, eg, laboratory testing: USPSTF recommendations, HIV, cholesterol, cancer screening (colon, cervical)
	Dental examinations: at least annual exams and subsequent classification assigned (1–4)
	Preventive Health Assessments (PHA): at least annually.
	Occupation-specific examinations: aviators, Personnel Reliability Program (nuclear weapons handling and support), Presidential Support Program
Immunizations	CDC-required and recommended immunizations (http://www.cdc.gov/vaccines/schedules/)
	Host-nation-specific immunizations, eg, yellow fever for Far East countries
Behavioral modifications	Substance use/abuse evaluation
	Exercise habits
	Dietary practices
	Medical therapy compliance
Chemoprophylaxis	Anti-malarials

CDC: Centers for Disease Control and Prevention; HIV: human immunodeficiency virus; TBI: traumatic brain injury; USPSTF: US Preventive Services Task Force

Mental health history and testing is done during the annual PHA and subsequently with each medical encounter. Given potential impacts on the mission, depression screening is done at the beginning of each encounter. The most frequently used "first-step" method for screening for depression is the Patient Health Questionnaire-2 (PHQ-2).[5] This survey instrument asks the USM to quantify his or her level of (1) anhedonia (lack of interest in activities) and (2) depressed mood over the most recent 2 weeks. Each question is graded on a 4-point Likert scale, with 0 equal to "not at all" and 3 corresponding to "nearly every day." Those patients who have a two question-combined answer score of 3 or higher are referred for additional evaluation.[5]

It is extremely important to detect and treat traumatic brain injury (TBI), including mild-TBI (concussions), yet these injuries remain hard to detect. Screening USMs for TBI involves baseline testing of neurological status during predeployment, and then follow-up testing after actual or possible TBI events. Baseline and post-event testing in the military are performed using tools such as the Automated Neuropsychological Assessment Metrics (ANAM).[6,7] Another option for testing at the point of care (in the field or clinic) after an event is the Military Acute Concussion Evaluation (MACE).[8]

Disease surveillance, including laboratory testing, is most often based on service-specific regulations and DoD instructions.[4] These regulations, in turn, are often based on the recommendations of the US Preventive Services Task Force (USPSTF). The USPSTF makes recommendations after an exhaustive objective review of all available evidence about a diagnostic test, therapeutic procedure, or other treatment. Its recommendation statements fall into one of three categories: recommended, uncertain, or not recommended.[9] Other disease surveillance testing currently in place for USMs includes human immunodeficiency virus (HIV), which is recommended every 18 to 24 months in the DoD, and non-fasting lipids (cholesterol), recommended every 5 years.

Disease surveillance screening is not limited to laboratory studies, however. Cancer screening is another aspect of prevention, and can include laboratory testing (for cervical and colon cancer) as well as imaging (for breast and colon cancer) or other procedures (for colon cancer). Current recommendations for cervical cancer screening in average-risk women include a cervical Papanicolaou (pap) smear every 3 years in females ages 21 to 29, and either a pap smear every 3 years or a high-risk human papillomavirus (HPV) test every 5 years in females ages 30 to 65. The cur-

rent recommendation for breast cancer screening is that average risk women (those without a first-degree relative family history of breast/ovarian cancer) should be screened with mammography every 2 years starting at age 50. Colon cancer screening recommendations include options for fecal occult blood testing (a laboratory study), computed tomography colonography (radiographic imaging), or colonoscopy (a procedure). The frequency for these tests vary with risk level, findings, age, and ethnicity.[9]

Dental readiness is a key component of medical readiness. All USMs need at least annual dental visits that include an exam and cleaning, and consequently they are grouped into four dental classes: those in class 1 do not require dental treatment for 12 months; those in class 2 require treatment within 12 months; those in class 3 require immediate treatment to avoid a dental emergency; and those in class 4 have not had a dental exam in the past 13 months. Classes 2 through 4 require limited mobility and duties due to urgency or gravity of the dental situation, and make the USM *not* medically ready.

The annual PHA is a required screening medical encounter for all USMs. All services rely on the member to report concerns in a pre-encounter survey and the provider to review the member's responses, previous encounters, and medical record. Screening items include routine vital signs, visual acuity, and member-reported mental and physical health concerns. This is often the only opportunity for the majority of USMs to update their information, specifically capturing any medical encounters from the civilian sector (the military's electronic medical record does not currently communicate with the civilian side) and new changes to their health. For specific USMs (eg, aviators, age > 50) hearing screening may also be done during or in association with the PHA.[4]

Some DoD units have additional requirements for medical readiness. These units include aviation (each medical decision or recommendation must be reviewed and approved by a flight surgeon prior to approving flight status) and those involved in the Presidential Support Program (PSP) and the Personnel Reliability Program (PRP). PSP personnel support the US president and presidential activities. PRP personnel either support activities involving or directly work with nuclear weapons. Given the high stakes involved with these activities, the healthcare of these personnel is monitored closely, with each medical interaction and decision requiring review and evaluation by the PSP/PRP medical team prior to the USM's return to full duties.[10]

Immunizations. While immunizations protect the individuals who receive them, immunizations also provide "herd" or community immunity, whereby community members who cannot receive a vaccine (infants, pregnant women, immunocompromised individuals) are still protected from a contagious disease outbreak because critical members are immunized.[11] Immunizations are one of the most significant medical breakthroughs in history, and have helped the developed world eradicate contagious diseases such as polio. The DoD requires all vaccinations recommended by the Centers for Disease Control and Prevention (CDC) for each USM.[12] All of the current recommended immunizations can be found on the CDC website (http://www.cdc.gov/vaccines/schedules/). MMOs should be familiar with the various databases used by the DoD to track USMs' immunizations status (see ***Data Management***, below).

Behavioral modification. One of the most important aspects of prevention involves behavior change. Areas of behavior that should be addressed include substance use or abuse (tobacco and alcohol most commonly), poor diet, poor exercise habits, and medical therapy noncompliance. Changing these behaviors by assessing the patient's willingness to change and then moving forward with specific, achievable goals is a powerful tool that can improve health and medical readiness for that individual and the military unit. Motivational interviewing is an effective technique that MMOs can use in behavior change counseling. This is a collaborative effort (usually initiated as a conversation) between the patient and provider to facilitate behavior change.[13]

Chemoprophylaxis. Prophylactic use of certain medications can also provide protection against illness and disability. For instance, pregnant USMs will receive prophylactic antibiotics during labor and delivery when they test positive for Group Beta Streptococcus (GBS). The most commonly used chemoprophylaxis method in the USM is anti-malarials. Other examples include taking aspirin for primary prevention of cardiovascular disease (CVD) and colon cancer in adults 50 to 59 with a greater than 10% 10-year CVD risk.

Evaluation

If the screening process, or a USM, raises a concern, further evaluation is required. Evaluation can include a focused history, physical examination, and diagnostic testing (laboratory and radiologic imaging). It may also involve referral from a primary care provider to a secondary care (specialist or subspecialist) provider. The MMO must work efficiently and effectively to evaluate any complaint or issue, with a keen focus on patient safety and health while minimizing mission disruptions.

TABLE 30-2

SERVICE-SPECIFIC PROFILING BASICS

Army	**Temporary or "T"**	**Permanent or "P"**
	• Definite endpoint with expectation of improving or resolving condition • May complete "diagnostic" APFT but no recorded APFT • If for less than 7 days, is entered on a "sick call slip," form DD689 • If more than 7 days, entered as e-Profile into MEDPROS as a DLC • Does not lead directly to an MEB • Recurrent T profiles may warrant a formal FFRE which may lead to MEB	• Indefinite endpoint, with no expectation of improvement or resolution to RTD or 1 year has elapsed from date of injury/disease • Indicated when soldier has met MRDP for at least one condition • Alternate APFT is authorized when any APFT event is medically contraindicated or unsafe • Requires approval authority • If PULHES 3 or 4, referral to MEB is mandatory
Navy	**Temporary Limited Duty (TLD)**	**Permanent Limited Duty (PLD)**
	• Appropriate for sailors who will likely return to an unrestricted duty status • If expected RTD is <30 days, use light duty form, NAVMED 6310-1; may be extended in 30-day increments, max 90 days • If expected RTD is > 90 days, documented on LIMDU form, NAVMED 6100/5, and authorize in 6-month increments (12-month max) • Enlisted: MTF convening authority may authorize up to 12 months of TLD; additional TLD must be approved by Navy Personnel Command (PERS-82) • Officers: TLD requests must be approved by PERS-82 • Members referred to PEB for disability adjudication are placed on TLD pending PEB outcome	• Allows USMs to continue on active duty in a limited assignment when there is a need for their skill or experience • Each case individually considered, member's length of service is not controlling factor in PLD decisions • Through referral to PEB process and processed on NAVMED form 6100/5 • Upon USM's request, PERS-82 may retain an "unfit to continue naval service" member in a PLD status when the retention is in the best interest of the service and consistent with guidance in paragraph 6003 of SECNAVINST 1850.4E • PLD will not be approved when retention in PLD status would jeopardize USM's or other's health or safety
Air Force	**Duty-Limiting Condition (DLC)**	**Mobility-Limiting Condition (MLC)**
	• Definite endpoint, resolution expected in 31–365 days • Completed on AF Form 469 in ASIMS • 469 must define duty restrictions including what member cannot do (templates available) • 469 must also include applicable FRs (cardio – run or walk, push-ups, sit-ups, abdominal circumference, height, weight) • Completed 469 requires commander's signature • Does not lead directly to MEB • 365 cumulative days for same condition warrants referral to DAWG at local MTF	• Definite or indefinite endpoint • Also completed on AF Form 469 in ASIMS with MR box checked • Condition may not improve or resolve • Associated with specific diagnoses • Members are not worldwide qualified and may not PCS or do TDY (see Medical Standards Directory* for a list of current medical standards for retention, flying classes, and special operational duty) • Will likely lead directly to MEB (pregnancy is mobility restricting, but does not lead to an MEB)

*Air Force Medical Service Knowledge Exchange (https://kx.afms.mil)

APFT: Army Physical Fitness Test
ASIMS: Aeromedical Services Information Management System
DAWG: Deployment Availability Working Group
DLC: duty-limiting condition
FFRE: fit-for-retention evaluation
FR: fitness restriction
LIMDU: limited duty
MEB: medical evaluation board
MEDPROS: Medical Protection System
MLC: mobility-limiting condition
MR: mobility restriction
MRDP: medical retention determination point
MTF: medical treatment facility
PCS: permanent change of station
PEB: physical evaluation board
RTD: return to duty
TDY/TAD: temporary duty
USM: uniformed service member

Data sources: (1) Sloan D, Garner K. Cross service communications: writing profiles for an increasingly joint environment. *Uniformed Fam Physician*. 2015;Winter:29–32. (2) US Department of the Army. Standards of Medical Fitness. Washington, DC: DA; 2011. Army Regulation 40-501. (3) US Department of the Air Force. *Duty-Limiting Conditions.* Washington, DC: DAF; 2013. Air Force Instruction 10-203. (4) US Department of the Air Force. Medical Examinations and Standards. Washington, DC: DAF; 2014. Air Force Instruction 48-123. (5) US Navy Personnel Command. Limited Duty (LIMDU). Washington, DC: DN; 2004. MILPERSMAN 1306-1200. (6) US Navy Bureau of Medicine and Surgery. Medical evaluation boards. In: *Manual of the Medical Department*. Washington, DC: BUMED; 2005: Chap 18.

TABLE 30-3

PHYSICAL PROFILE SERIAL CHART (PULHES) AND HEARING PROFILE

	1	2	3	4
P: Physical Condition	Free of any identified organic defect or systemic disease.	Presence of stable, minimally significant organic defect(s) or systemic diseases(s). Capable of all basic work commensurate with grade and position. May be used to identify minor conditions that might limit some deployments to specific locations.	Significant defect(s) or disease(s) under good control. Capable of all basic work commensurate with grade and position.	Organic defect, systemic or infectious disease which requires, or is currently undergoing, a Medical Evaluation Board (MEB) or Initial Review in lieu of Medical Evaluation Board (IRILOMEB) as determined by the Deployment Availability Working Group (DAWG).
U: Upper Extremities	Bones, joints, and muscles normal. Able to do hand-to-hand fighting.	Slightly limited mobility of joints, mild muscular weakness or other musculoskeletal defects that do not prevent hand-to-hand fighting and are compatible with prolonged effort. Capable of all basic work commensurate with grade and position.	Defect(s) causing moderate interference with function, yet capable of strong effort for short periods. Capable of all basic work commensurate with grade and position.	Severely compromised strength, range of motion, or general efficiency of the hand, arm, shoulder girdle, or back (includes cervical and thoracic spine) which requires, or is currently undergoing, a Medical Evaluation Board (MEB) or Initial Review in lieu of Medical Evaluation Board (IRILOMEB) as determined by the Deployment Availability Working Group (DAWG).
L: Lower Extremities	Bones, muscles, and joints normal. Capable of performing long marches, continuous standing, running, climbing, and digging without limitation.	Slightly limited mobility of joints, mild muscular weakness, or other musculoskeletal defects that do not prevent moderate marching, climbing, running, digging, or prolonged effort. Capable of all basic work commensurate with grade and position.	Defect(s) causing moderate interference with function, yet capable of strong effort for short periods. Capable of all basic work commensurate with grade and position.	Severely compromised strength, range of motion, or efficiency of the feet, legs, pelvic girdle, lower back, or lumbar vertebrae which requires, or is currently undergoing, a Medical Evaluation Board (MEB) or Initial Review in lieu of Medical Evaluation Board (IRILOMEB) as determined by the Deployment Availability Working Group (DAWG).
H: Hearing (Ears). See Table A3.2.				
E: Vision (Eyes)	Minimum vision of 20/200 correctable to 20/20 in each eye.	Vision correctable to 20/40 in one eye and 20/70 in the other, or 20/30 in one eye and 20/200 in the other eye, or 20/20 in one eye and 20/400 in the other eye.	Vision that is worse than E-2 profile.	Visual defects worse than E-3 which requires, or is currently undergoing, a Medical Evaluation Board (MEB) or Initial Review in lieu of Medical Evaluation Board (IRILOMEB) as determined by the Deployment Availability Working Group (DAWG).

(**Table 30-3** *continues*)

Table 30-3 *continued*

S: Psychiatric Stability	Diagnosis or treatment results in no impairment or potential impairment of duty function, risk to the mission or ability to maintain security clearance.	World Wide Qualified and diagnosis or treatment results in low risk of impairment or potential impairment that necessitates command consideration of changing or limiting duties.	World Wide Qualified and diagnosis or treatment results in medium risk due to potential impairment of duty function, risk to the mission or ability to maintain security clearance.	Diagnosis or treatment resulting in high to extremely high risk to the AF or patient due to potential impairment of duty function, risk to the mission or ability to maintain security clearance which requires, or is currently undergoing, a Medical Evaluation Board (MEB) or Initial Review in lieu of Medical Evaluation Board (IRILOMEB) as determined by the Deployment Availability Working Group (DAWG).

Acceptable audiometric hearing level for Air Force

Unaided hearing loss in either ear with no single value greater than:

Frequency (Hz)	**500**	**1000**	**2000**	**3000**	**4000**	**6000**	**Comments**
H-1	25	25	25	35	45	45	Class I and IA, IFCII, IFCIII, Air Force Academy, Ground Based Controller (GBC), and selected career fields as noted in the Officer and Enlisted Classification directories.
H-2	35	35	35	45	55	--	Air Force enlistment, commission, initial Missile Operations Duty (MOD), Survival, Evasion, Resistance, and Escape (SERE), continued Ground Based Controller (GBC), flyers require evaluation for continued flying (see Aircrew waiver guide for details on the evaluation).
H-3	Any loss that exceeds the values noted above, but does not qualify for H-4.						H-3 profile requires evaluation and Major Command waiver for continued flying, and Audiology evaluation for fitness for continued active duty.
H-4	Hearing loss sufficient to preclude safe and effective performance of duty, regardless of level of pure tone hearing loss, and despite use of hearing aids.						This degree of hearing loss is disqualifying for all military duty. These require evaluation for continued service via either Air Reserve Component Fitness for Duty (FFD), Worldwide Duty (WWD) processing, or review by the Deployment Availability Working Group (DAWG) in accordance with Air Force Instruction 10-203 and 41-210 for Initial Review in lieu of Medical Evaluation Board.

Reproduced from: US Department of the Air Force. *Medical Examinations and Standards.* Washington, DC: DAF; 2018. Air Force Instruction 48-123. Attachment 3, Tables A3.1 and A3.2.

Treatment

Once a condition has been evaluated and diagnosed, treatment is the logical next step. While not all conditions or patient complaints can be diagnosed, the MMO must determine whether there is potential harm for the individual, society, the unit, or the mission. If the possibility of harm exists, treatment must be completed at the recommended interval, and the MMO must be in communication with the member's CO as well as their own medical CO about the issue. Communication of medically necessary information among all parties facilitates decision-making and is an example of the crucial advisory role the MMO plays for the military CO.

Physical Profiles and Medical Evaluation Boards

The main tool for communicating medical limitations for a USM is the physical profile. While each service has unique ways of handling light duty, profiles, and subsequent referrals to medical evaluation boards (MEBs), each requires the MMO to communicate a USM's medical readiness status to their respective CO (Table 30-2). All services use (to varying degrees) the physical profile serial system to analyze and "grade" the functions of various organs, systems, and integral body parts. This grading system has six factors, designated as "P-U-L-H-E-S," in which each letter delineates a specific medical area (Table 30-3). All potential restrictions can impact promotion and the mission, and therefore must be used appropriately and judiciously.

Physical profiles can convey medically directed and recommended restrictions on duties, mobility status, and fitness participation and testing. Duty activities that are restricted are generally occupation-specific (lifting, carrying, jumping, etc) but can be general in nature because fitness is considered a core USM duty. Duty restrictions are usually attached to conditions that will resolve within 31 to 365 days (eg, ankle sprain, fractured bone). Mobility restrictions can impact deployments, permanent change of station moves, and temporary duty assignments. Mobility restrictions are generally recommended when specific diagnoses are made (eg, cancer, suicidal ideation, diabetes) and the workup of the condition is ongoing. Fitness restrictions can directly impact the USM's ability to complete required physical fitness testing. Fitness restrictions may occur in conjunction with either a duty or mobility limitation (eg, a postoperative procedure). For each stated restriction in the written profile, the USM's CO has ultimate authority for determining whether to accept or reject the recommendation.

MEBs are convened when a military member is diagnosed with a specific medical condition that could have a permanent or long-term impact on their ability to perform mission or duty requirements. MEBs can be initiated for either duty or mobility limitations, and must be considered with each limitation or recommended restriction. Each service has a separate process and threshold for carrying out an MEB, although each requires that the patient's primary care manager complete a narrative summary that details all of the current medical issues and delineates their potential mission/duty impact. The USM's CO is also required to write a letter determining the mission impact of the USM's condition. The entire package is reviewed by an objective team of multidisciplinary professionals, who render the final decision. The decision results in one of three outcomes for the USM: (1) return to duty without restriction, (2) return to duty with defined restrictions, or (3) separate or medically retire from military service. Table 30-4 lists MEB and physical profile resources for each service.

Data Management

The DoD maintains multiple databases that track USM medical readiness. The Air Force currently uses the Aeromedical Services Information Management System (ASIMS), the Army uses the Medical Protection

EXHIBIT 30-2

MILITARY MEDICAL OFFICER DEPLOYMENT CONCERNS FOR INDIVIDUAL DEPLOYERS

Immunization status
- Review and update all CDC-required immunizations
- Consider/give: smallpox and anthrax
- Consider other location-specific immunizations (eg, yellow fever)

Personal protection
- Appropriately-sized gas mask
- Two pairs of corrective lenses and gas mask inserts (if applicable)
- Consider anti-malarials

Location-specific occupational health issues
- Consider climate
- Consider specific health needs (electrical outlet, refrigeration, etc)
- Consider medications/immunizations

TABLE 30-4

MEDICAL EVALUATION BOARD AND PHYSICAL PROFILE REFERENCES

Service	Document	URL
Army	AR 40-501	https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN3801_AR40-501_Web_FINAL.pdf
Navy	MANMED, Chapter 18	https://www.med.navy.mil/directives/Documents/NAVMED%20P-117%20%28MANMED%29/MMDChapter18pdf
	SECNAVINST 1850.4E	http://www.secnav.navy.mil/mra/CORB/Documents/SECNAVINST-1850-4E.PDF
Air Force	AFI 10-203	https://www.afpc.af.mil/Portals/70/documents/06_CAREER%20MANAGEMENT/03_Fitness%20Program/Air%20Force%20Instruction%2010-203.pdf?ver=2018-08-22-115744-620
	AFI 48-123	http://static.e-publishing.af.mil/production/1/af_sg/publication/afi48-123/afi48-123.pdf

TABLE 30-5

MEDICAL READINESS DATABASES

Service	Database	Acronym	URL
Army	Medical Protection System	MEDPROS	https://medpros.mods.army.mil/MEDPROSNew/
Navy	Medical Readiness and Reporting System	MRRS	https://mrrs.sscno.nmci.navy.mil/mrrs/
Air Force	Aeromedical Services Information Management System	ASIMS	https://asims.afms.mil/webapp/Login.aspx

System (MEDPROS), and the Navy and Marine Corps utilize the Medical Readiness and Reporting System (MRRS). Table 30-5 lists the URL for each. All have the common goal of providing a CO a quick snapshot of the unit's medical readiness. It is important for the MMO to be facile with entry and review of data in these repositories.

Deployment

Upon receipt of orders for a contingency deployment, the USM's full record must be evaluated for medical readiness. All of the predeployment requirements listed above must be reviewed and completed in a timely and efficient manner, which will depend on how well the MMO has maintained an appropriate and correct database of information for each member of the unit. Ultimately, the MMO must medically "clear" each individual for deployment. Several key concerns for the MMO once deployment orders have been received are the USM's immunization status, personal protection, and location-specific occupational health issues (Exhibit 30-2).

Required immunizations should be updated for each USM before deployment orders arrive, but current requirements for the deployment's determined area of responsibility (AOR) should be reviewed. Two common immunizations in the current AOR that play a role in deployment preparation are smallpox and anthrax. Each USM must complete screening forms to determine medical eligibility for these immunizations, and the MMO is ultimately responsible for determining whether the member should be issued these critical immunizations predeployment or in the AOR. Additional immunizations may be necessary based on the specific AOR.

Personal protection is another key component of medical readiness. Anti-malarials are an example of chemoprophylaxis personal protection. In addition, all deploying members must be fitted for and then issued an appropriately sized gas mask prior to their departure for the AOR. This often is completed under the guidance of the MMO or the MMO's designee. Dovetailing with gas mask fitting, the MMO must ensure that each member who requires vision correction has two pairs of corrective lenses (ie, eyeglasses; contact lenses are not allowed in the AOR) and gas mask inserts with the same prescription.

The MMO must also consider occupation-specific information about the AOR to enhance environmental medical readiness. While predeployment medical readiness covers many different aspects, specific AORs

have unique prevention needs. Targets of prevention may include medications (anti-malarials) and immunizations (yellow fever). A USM's individual health needs may also play a role. Certain health conditions may limit the USM's ability to perform (including the need for electrical outlets for medical equipment, refrigeration of medications, etc). Additionally, understanding and preparing for the AOR's climate can reduce climate-induced morbidity (heat or cold injuries).

Postdeployment

Postdeployment time focuses on reunion and readjustment for the USM. While many areas begin to overlap with the subsequent predeployment period, a major focus for the MMO after deployment is the Post-Deployment Health Re-Assessment Program (PDHRA). This program involves a sequenced process including member survey completion and face-to-face encounters immediately and at later intervals after redeployment home. The program's main goal is determining whether any medical conditions or concerns developed during, or are related to, the deployment. The program also specifically targets significant concerns such as posttraumatic stress disorder (PTSD), TBI, and other environmental exposure issues. With appropriate evaluation, USMs can be rapidly and appropriately referred for further evaluation and treatment of any concerning condition.[14]

GUIDANCE TO COMMANDING OFFICER

The MMO should provide regularly scheduled updates about the unit's medical readiness to the CO. Any deficiencies should be remedied, or at the very least, solutions provided as potential fixes. Expect the CO to demand 100% accountability for all medical readiness items, and anticipate that the CO will prevent USMs from taking leave or holiday time if the requirements are not met. Expectations are best managed with constant communication between the MMO and the CO.

SUMMARY

The MMO plays a crucial role in maintaining the medical readiness of each USM. It is imperative that the MMO work closely with the CO to facilitate rapid and efficient screening, evaluation, and treatment of each USM to ensure mission completion. Maintaining knowledge of the service-specific guidelines will enhance the USM's medical readiness and help the DoD achieve the "Quadruple Aim."

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