## 17.0 MISCELLANEOUS CONDITIONS

Last Revised: March 2016 Last Reviewed: March 2016

## 17.1 ALLERGIC REACTIONS TO INSECTS

			Class I				
	Applicant	SG 1	SG 2	SG 3	Class II	Class III	Class IV
CD	X	Х	Х	Х	Χ	X	X
NCD							
WR	case-by- case 1	case-by- case <sup>2</sup>					
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not required.						

- Applicants with a history of cutaneous or mild systemic reactions must have received VIT and be on a stable maintenance dose prior to submitting an application for a waiver. Applicants with severe allergic reactions will not be considered for waiver until they have completed a minimum of three years of VIT and have demonstrated a documented negative repeat skin test.
- 2. The decision for waiver will be made on a case-by-case basis after review of all the available documentation.

**AEROMEDICAL CONCERNS:** Any history of systemic or anaphylactic reaction to insect venom, foods, or food additives is considered CD for all DIF. Systemic or significant local reactions to insect bites or stings may lead to incapacitation in as little as three to five minutes. This type of rapid incapacitation is incompatible with aviation duty without successful diagnosis and treatment. Desensitization with Allergy or Venom-Specific Immunotherapy requires specialty-specific care, more aggressive initial therapy, and then regular dosing over years. The initial treatment and maintenance dosing must be done at a qualified facility with the ability to handle severe reactions. These medications have specific storage and transport requirements. These requirements may prevent operational duties in some areas/locations and must be considered.

**DISCUSSION:** Venom-Specific Immunotherapy (VIT) is required for all adult individuals experiencing systemic or anaphylactic reactions. Cutaneous systemic reactions prior to the age of 16 do not require treatment with VIT and do not require a waiver. These individuals have a minimal risk of systemic reaction as an adult (approximately 10%). However, anaphylactic reactions in individuals less than 16 years of age require allergy/immunology consult and skin testing. If positive, VIT is required for a career in aviation. Carrying an emergency anaphylactic kit (Epi Pen) does not preclude a member from consideration for a waiver. In some instances, it may be required to carry Epi Pen in the performance of aviation duty. The requirement to carry an emergency anaphylactic kit will be based on the severity of the reaction and the recommendation of the Allergy/Immunology specialist.

A generalized reaction to 100 wasps is a normal response, which does not fulfill the criteria of the generalized reaction described above. Anaphylaxis from a single sting is different matter.

Diagnosis/ICD-9 CODE:

989.5 Toxic effect of venom

V15.6 Personal history of poisoning presenting hazards to health

V07.1 Need for desensitization to allergens

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from A<u>llergy/Immunology</u> care with recommendation of return to flight status and no restrictions **documented** on last clinical note (electronic or paper).
- If <u>Allergy/Immunology</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>Allergy/Immunology</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB.
- Member must be up-to-date with VIT.
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Annual Submission
REQUIREMENTS	

Flight Surgeon comment regarding interval history.

Specialist Evaluation: Allergy/Immunology, unless otherwise specified by code 53HN.

## 17.2 BREAST IMPLANTS AND SURGERY

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	X <sup>1</sup>	$X^1$	X <sup>1</sup>				
NCD							
WR	X <sup>2</sup>	X <sup>1</sup>	X <sup>1</sup>				
WNR							
LBFS	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not required.						

- Any history of chest wall (including breasts) surgery during the preceding 6 months is considered disqualifying. After 6 months, the condition is not considered disqualifying if there have been no complications and the member remains asymptomatic. Beyond the 6 months, the retained breast implants are NCD, if stable, uncomplicated, and asymptomatic.
- 2. Waivers may be considered only after **6 weeks** following surgery provided full recovery without complication.

**AEROMEDICAL CONCERNS:** The condition or its sequelae can adversely affect the flight performance, mission, or safety. Complications from breast surgery include infection, abscess, wound separation, and pneumothorax. Long-term effects include chronic pain from scarring, chest muscle function, repeat surgery, or breast dysfunction after implant. Waivers may be considered after full recovery from surgery (at least 6 weeks). For implants, it is possible shifting of implants may occur during high G flight and may compromise the surgical result early after surgery, or later cause distraction and/or pain during flight.

#### **Waiver Comments:**

- The history of breast surgery and retained implants are NCD, if it has been more than 6
  months since the surgery and the member is asymptomatic with no complications and
  no physical limitations.
- 2. Waivers are considered after completing 6 weeks postoperative.
  - a. Fully recovered, no limitations, cleared by surgeon for full duty.
- 3. Waivers are considered for designated aviators.

#### Diagnosis/ICD-9 CODE:

- 85.31 Unilateral reduction mammoplasty
- 85.32 Bilateral reduction mammoplasty
- 85.4 Mastectomy
- 85.41 Unilateral simple mastectomy
- 85.42 Bilateral simple mastectomy
- 85.50 Augmentation mammoplasty, NOS
- 85.53 Unilateral breast implant
- 85.54 Bilateral breast implant

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from <u>Surgical Specialist's</u> care with recommendation of return to flight status and no restrictions <u>documented</u> on last clinical note (electronic or paper).
- If the <u>Surgical Specialist</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).

- <u>Surgical Specialist's</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Surgery/Procedure Note (if applicable, electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation: Surgical report and postoperative care notes included release to full duty.

FOLLOW UP	Annual Submission
REQUIREMENTS	

<u>Specialist Evaluation</u>: Surgical specialist initially then as required, Women's Health Specialist thereafter.

<u>Labs</u>: As recommended by specialist Imaging: As recommended by specialist

<u>Flight Surgeon Comment</u>: With respect to symptoms, any limitation, or any need for additional surgery or therapy including medications.

#### **APPENDICIES**

Breast cancer and its surgical/medical treatment are covered in the Malignancy section of the ARWG.

## 17.3 HEAT EXHAUSTION/STROKE

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	X	Х	X	Х	Х	Х
NCD							
WR	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB		History of heat stroke or history of recurrent heat exhaustion (3x/24 months) should be referred to the PEB for disposition (SECNAVINST 1850.4 series, encl (8)).					

1. See waiver comments 1, 2, and 3 below.

**AEROMEDICAL CONCERNS:** The condition or its sequelae can adversely affect the flight performance, mission, or safety. Heat injuries alter performance and/or can result in serious medical complications. The recurrence of heat exhaustion/heat stroke while in the aviation/operational environment is possible with a history of heat injury. The sequelae of some heat injuries can limit operational capability.

#### **WAIVER COMMENTS:**

- 1. Heat Cramps, single or multiple episodes: NCD
- 2. Heat Exhaustion: NCD, unless severe or recurrent. Any history of 3 or more episodes is CD.
- 3. Heat Stroke: any history is CD. Waivers are considered on a **case-by-case** basis. Waiver disposition may be favorable if the following conditions are met:
  - a. No evidence of a congenital predisposing condition (i.e., anhidrosis).
  - b. An identifiable situational stressor led to the episode, such as dehydration, coexisting infectious disease, medication effect, fatigue, sleep deprivation, or lack of acclimatization.
  - c. No residual injury exists.
  - d. A minimum of three months have passed since the episode of heat stroke.
  - e. Evidence of normal heat tolerance after recovery from the heat stroke episode.
  - f. Individuals who fail to meet these criteria will remain NPQ with no waiver recommended. Recurrent episodes of heat stroke are CD, with waiver unlikely.

#### **INFORMATION REQUIRED:**

 Severe or recurrent heat exhaustion or one episode of heat stroke will require evaluation by NAMI Internal Medicine

**DISCUSSION:** Heat stress and heat injury continue to be significant environmental hazards in military aviation. Exertional heat stroke (EH) is a state of extreme hyperthermia that occurs when excess heat generated by muscular exercise exceeds the body's ability to dissipate it. Loss or significant alteration of consciousness in the circumstances of physical exertion in hot weather should be considered heat stroke unless another cause is obvious.

Studies show that exertional heat stroke in a young, healthy (military) individual result from situational factors; an intrinsic predisposition to heat intolerance is extremely rare. Dehydration, febrile or infectious illness, skin disorders, poor physical fitness and obesity are well-accepted

factors predisposing to heat intolerance. Some of these factors may result in only temporary heat susceptibility while others can lead to permanent heat intolerance.

Diagnosis/ICD-9 CODES:

992.0 Heat stroke 992.2 Heat cramps

992.5 Heat exhaustion unspecified

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from <u>internal medicine or neurology</u> care with recommendation of return to flight status and no restrictions <u>documented</u> on last clinical note (electronic or paper).
- If <u>internal medicine or neurology</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- *Internal medicine or neurology* recommendation for follow on care **documented** on last clinical note (electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Annual Submission
REQUIREMENTS	

Flight Surgeon comment regarding interval history.

## 17.3A RHABDOMYOLYSIS

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	Х	X	X	Х	Х	Х
NCD							
WR	case-by- case	case-by- case <sup>1</sup>	case-by- case	case-by- case <sup>1</sup>	case-by- case 1	case-by- case <sup>1</sup>	case-by- case 1
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB		PEB may be required for exertional rhabdomyolysis when associated with heat stroke (SECNAVINST 1850.4 series, encl (8))					

1. See waiver comments below.

**AEROMEDICAL CONCERNS:** The condition or its sequelae can adversely affect the flight performance, mission, or safety. Any history of this condition is disqualifying. The physiologic changes that occur in rhabdomyolysis may be precipitated by and severely compounded in the aviation environment and related duties involving flight. Symptoms may include muscular pain, muscular weakness, and fatigue. Decreased situational awareness and cockpit distraction are of major concern. Additionally, unrecognized rhabdomyolysis may progress to renal failure, shock, cardiac arrhythmias, and death.

**WAIVER COMMENTS:** The history of a single episode of uncomplicated rhabdomyolysis is CD for all aviation classes, including applicants; if the condition fully resolves within three months without sequelae, waivers are recommended on a case-by-case basis.

Any history of rhabdomyolysis is CD. Waivers are considered on a case-by-case basis in DESIGNATED members only. Waivers are considered under the following conditions:

- 1. No evidence of a congenital predisposing condition (e.g., myophosphorylase deficiency, sickle cell trait).
- 2. An identifiable situational stressor led to the occurrence, such as extreme physical exertion, trauma or muscle compression, dehydration, electrolyte abnormality, coexisting infectious disease, toxin exposure, medication effect, or fatigue.
- 3. No residual organ injury or damage is present.
- 4. A minimum of three months has passed since the episode of rhabdomyolysis.

**DISCUSSION:** Rhabdomyolysis is a syndrome characterized by muscle necrosis and release of intracellular muscle constituents into the circulation. The disease process can range from mild, asymptomatic enzyme elevations to life-threatening cases involving cardiac arrhythmias, disseminated intravascular coagulation, acute renal failure, and death. The classic presentation of rhabdomyolysis includes myalgias, myoglobinuria causing reddish to brown urine, and elevated serum muscle enzymes. Diagnosis is based upon fractionated serum skeletal muscle creatine kinase levels, which may exceed 100,000 IU/L, and appropriate clinically correlated history. While no specific cutoff for creatine kinase level is used to diagnose rhabdomyolysis, a serum level 5 times greater than baseline is the generally accepted level. Additional predisposing conditions and causal factors include prolonged unconsciousness resulting in extended dorsal muscle compression, struggling against restraints, episodes of near drowning.

burns, sepsis, torture victims, high-voltage electrical injuries, compartment syndrome, hyperthermia, hypothermia, prolonged tourniquet application, seizures, sporadic extreme physical exertion (i.e., ultra-marathoners), dehydration, inappropriate nutritional supplement use, and pre-existing electrolyte abnormalities.

Diagnosis/ICD-9 CODES: 728.88 Rhabdomyolysis 791.3 Myoglobinuria

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from <u>Internal Medicine</u> care with recommendation of return to flight status and no restrictions **documented** on last clinical note (electronic or paper).
- If <u>Internal Medicine</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>Internal Medicine</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Routine Submission
REQUIREMENTS	

Flight Surgeon comment regarding interval history.

## 17.4 HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION

Last Revised: March 2016 Last Reviewed: March 2016

Significant changes: 1) HIV waivers considered on case-by-case basis for designated personnel in Class II, III, IV

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	X	Χ	X	Х	X	X	Х
NCD							
WR					Case-by-	Case-by-	Case-by-
VVIX					case	case	case
WNR	X	Χ	X	X			
LBFS		No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB		PEB is not required for uncomplicated HIV seropositivity. Complicated cases may require PEB IAW					
EIIIIB O/I EB	SECNAVINST 1	850.4 series, er	ncl (8).				

**AEROMEDICAL CONCERNS:** Previously recommended management of HIV infection included monitoring CD4 cell decline and starting antiretroviral therapy when a specific threshold was reached. Today, the U.S. Department of Health and Human Services now recommends starting treatment as soon as infection is diagnosed. Mostly due to earlier treatment, aeromedically concerning manifestations of HIV infection such as encephalopathy, opportunistic infections, and opportunistic malignancies rarely develop in those whose infection is identified and treated early. As such, uncomplicated cases of HIV seropositivity may be considered for waivers with appropriate monitoring. Since 2013, the U.S. Navy allows those infected with HIV without complications, the opportunity to deploy and PCS overseas and serve aboard large platform ships to a limited number of specific locations.

**MEDICAL THERAPY:** All personnel requesting a waiver as well as those previously granted a waiver must be free of any side effects related to their treatment including, but not limited to medication changes or dosage adjustments. Any complications of treatment shall be brought to the immediate attention of NAMI Internal Medicine.

## <u>A GROUNDING PHYSICAL AND AMS SHALL BE SUBMITTED UPON CONFIRMATION OF MEMBER WITH HIV SERO-POSITIVE LABORATORY TESTING</u>

Diagnosis/ICD-10 CODE:

Z21 Asymptomatic HIV infection status

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Complete initial evaluation required by SECNAVINST 5300.30 series and released from <u>infectious diseases</u> care with recommendation of return to full duty and no restrictions **documented** on last clinical note (electronic or paper).
- If <u>infectious diseases</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>Infectious diseases</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- CogScreen-AE completed (full neuropsychological battery testing might also be required as indicated by CogScreen-AE results).
- Navy HIV Evaluation and Treatment Unit (HETU) comprehensive psychosocial evaluation.
- Achieve an undetectable blood viral load using FDA-approved agents recommended by U.S. Department of Health and Human Services, excluding efavirenz.
- Copies of any prior PEB.

- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

## AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

AMS must include: "No aeromedically significant adverse effects due to antiretroviral therapy." Flight Surgeon Comment: Safer sex counseling completed and documented in AMS

EOLLOW UD	Annual Submission
FOLLOW UP	Annual Submission
REQUIREMENTS	
KEROIKEMIEMIO	

<u>Specialist Evaluation:</u> --Infectious diseases follow-up visits every 6 months, submitted annually --Navy HETU psychosocial evaluation

Labs: As recommended by specialist

CogScreen-AE

Flight Surgeon Comment: Safer sex counseling completed and documented in AMS

<u>Prior to screening for deployment, OCONUS or SeaDuty assignments, members must submit a request to update their waiver provisions to consider the requirements for the specific duty location requested.</u>

#### **APPENDICIES**

#### References:

- MILPERSMAN 1300-1300. (2013). Assignment of personnel with bloodborne pathogens (BBP). Retrieved from http://www.med.navy.mil/sites/nmcphc/Documents/nbimc/MILPERSMAN-1300-1300.pdf
- 2. DoDI 6485.01 HIV in Military Service Members
- 3. SECNAVINST 5300.30E Management of Human Immunodeficiency Virus, Hepatitis B Virus and Hepatitis C Virus Infection In The Navy And Marine Corps
- 4. BUMEDINST 1300.2A Suitability Screening
- 5. U.S. Department of Health and Human Services. (2015). Clinical guidelines portal. Retrieved from <a href="https://aidsinfo.nih.gov/guidelines">https://aidsinfo.nih.gov/guidelines</a>

# 17.4.1 TRUVADA® PRE-EXPOSURE PROPHYLAXIS (PREP) TO PREVENT HIV INFECTION

Last Revised: September 15 Last Reviewed: September 15

Significant changes: 1) new addition to ARWG

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	Х	X	Х	Х	Х	Х
NCD							
WR	Case-by-	Case-by-	Case-by-	Case-by-	Case-by-	Case-by-	Case-by-
VVIX	case	case	case	case	case	case	case
WNR							
LBFS		No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not required.						

**AEROMEDICAL CONCERNS:** Truvada® is FDA-approved to be used by HIV-negative persons to prevent HIV infection. Several pharmaceutical resources list aeromedically significant potential adverse effects such as nausea and dizziness. However, in a poll of Navy infectious diseases staff physicians, these potential adverse effects are either not seen in clinical practice or would manifest within 14 days of medication use, thereby allowing cessation of therapy in those affected.

Diagnosis/ICD-9 CODE:

Z79.899 Long term use of medications

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from <u>infectious diseases</u> care with recommendation of return to full duty and no restrictions **documented** on last clinical note (electronic or paper).
- If <u>infectious diseases</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>Infectious diseases</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Labs: HIV antibody and viral load (PCR) (negative), serum creatinine (normal), other screening tests deemed necessary by treating physician.
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

## AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

AMS must include: "No significant adverse effects due to Truvada during a 14-day grounding period."

Flight Surgeon Comment: Safer sex counseling completed and documented in AMS

FOLLOW UP	Annual Submission
REQUIREMENTS	

<u>Specialist Evaluation</u>: ID or internal medicine or family medicine follow-up <u>Labs</u>: HIV antibody test every 3 months; serum creatinine every 6 months

Flight Surgeon Comment: Safer sex counseling completed and documented in AMS

## **APPENDICIES**

## References:

- Grant, R., et al. (2010). Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men (iPrEx). *NEJM*.
- Lexicomp Online®, Hudson, Ohio: Lexi-Comp, Inc.; October 22, 2015.

## 17.5 LYME DISEASE

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	X	Χ	Х	Х	Х	Х	Х
NCD							
WR	case-by- case	case-by- case 1	case-by- case 1	case-by- case	case-by- case 1	case-by- case 1	case-by- case 1
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not Required						

1. Waiver considered on a case-by-case basis.

**AEROMEDICAL CONCERNS:** The condition or its sequelae can adversely affect the flight performance, mission, or safety. This condition is disqualifying for aviation. Early infection with *Borrelia burgdorferi* generally results in the characteristic cutaneous rash known as erythema migrans. Later in the course of the disease, chronic meningitis, polyneuropathy or Bell's palsy can develop. Months to years later, arthritis can be the predominant feature. Note that all these conditions can appear in any order and at any time during the course of the infection. *B. burgdorferi* can also cause a myo/pericarditis, conjunctivitis, and retinal hemorrhage or detachment.

Diagnosis/ICD-9 CODE: 088.81 Lyme disease

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- <u>Infectious Diseases Specialist</u> evaluation <u>documented</u> on last clinical note (electronic or paper).
- <u>Infectious Diseases Specialist</u> evaluation with recommendation of return to flight status, no restrictions, and world-wide deployability <u>documented</u> on last clinical note (electronic or paper).
- If <u>Infectious Diseases Specialist</u> recommends restrictions, then documentation of physical limitations and expected duration (permanent vs temporary).
- <u>Infectious Disease Specialist</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Routine Submission
I OLLOW OF	Noutine Submission
REQUIREMENTS	
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Flight Surgeon comment regarding interval history.

<u>Specialist Evaluation</u>: Infectious diseases or internal medicine, unless otherwise specified by code 53HN.

## **APPENDICIES**

## References:

Centers for Disease Control & Prevention. *Lyme disease*. Retrieved from <a href="http://www.cdc.gov/lyme/">http://www.cdc.gov/lyme/</a>

## 17.6 MOTION SICKNESS/AIR SICKNESS

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	X	X <sup>1</sup>	X 1	X 1	X 1	X 1	Х
NCD							
WR	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>	case-by- case <sup>2</sup>
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>	SNA, SNFO (CNATRA Instruction 6410.2 series) <sup>3</sup>						
LIMDU/PEB	Not Required						

- 1. Recurrent, incapacitating, or persistently requiring premedication is disqualifying.
- 2. Waivers for the recurrent/persistent condition are unlikely. Some waivers are considered on a case-by-case basis.
- 3. Many student aviators (SNA, SNFO) experience transient motion sickness that will desensitize and resolve with continued flying and/or interventions according to CNATRA Instruction 6410.2 series. This transient condition is NCD, if fully resolved. It is CD when the condition is intractable/ persisting despite interventions.

AEROMEDICAL CONCERNS: The condition or its sequelae can adversely affect the flight performance, mission, or safety. A history of motion sickness resulting in recurrent incapacitating symptoms or symptoms of such severity to require pre-medication, in the previous 3 years, is disqualifying. Symptoms can include sweating, nausea, drowsiness, lethargy, apathy, headache, and vomiting. This spectrum can range from distraction to prostration while flying. Motion sickness's systemic symptoms and cognitive degradation can occur with or without vomiting. The condition can be associated with a prolonged (hours) recovery of normal function following the discontinuation of the inciting conditions. The condition is difficult to treat. Most anti-nausea medications induce somnolence and are used only in accordance to Navy Instruction. Non-medicinal treatments include relaxation, cool air, diet, biofeedback methods, and exposure desensitization. Exposure desensitization takes a variable amount of time (days or weeks) for each individual and some never desensitize. Underlying neurological, vestibular, or psychological conditions should be considered in persistent cases of motion sickness.

SNAs and SNFOs (CNATRA personnel): The condition is common among students in training and some experienced aviation personnel returning to flight after a prolonged period of no flying. Many student aviators will experience varying degrees of transient motion sickness in the naval flight training environment. Most of these students will desensitize after several flights with/without minor intervention. Others will require additional treatment or desensitization training. The condition is NCD for student aviators when it is transient, resolving spontaneously or when addressed according to the CNATRA Instruction 6410.2 series. The condition is CD when intractable, persisting despite intervention.

Diagnosis/ICD-9 CODE: 994.6 Motion sickness

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- <u>Squadron Flight Surgeon evaluation IAW CNATRA Instruction 6410.2 series</u> evaluation <u>documented</u> on last clinical note (electronic or paper).
- <u>Squadron Flight Surgeon evaluation IAW CNATRA Instruction 6410.2 series</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

Include the Motion Sickness Worksheet (QS-MS) – uploaded to AERO.

FOLLOW UP	Annual Submission
REQUIREMENTS	

Flight Surgeon comment regarding interval history.

#### **APPENDICIES**

#### References:

Chief of Naval Air Training. *Airsickness handout*. Retrieved from http://www.cnatra.navy.mil/tw4/flightmedicine/docs/airsickness\_recommendations.pdf

Chief of Naval Air Training. *CNATRA instruction 6410.2 series*. Retrieved from http://www.cnatra.navy.mil/pubs/folder2/6410.2A.pdf

## 17.7 BONE MARROW DONATION

Last Revised: September 15 Last Reviewed: September 15

	Applicant		Class I		Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	Χ	X	X	Х	Х	Х
NCD							
WR	X <sup>1</sup>						
WNR							
LBFS	No						
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not Required.						

1. A minimum of 30 days grounding is required after donation (no waiver). See waiver comments below.

**AEROMEDICAL CONCERNS:** Bone marrow donation is certainly one of the most altruistic forms of giving to another individual. However, there are significant donor concerns. Bone marrow donation will ground the aviator for at least 30 days and has the potential for complications that could restrict deployment or even end a flying career. Depending on how well the human leukocyte antigens (HLA) are matched, up to 5% of the recipients will require a second donation that will further restrict the deployability of the aviator donor. If an aviator is contemplating a donation, the Flight Surgeon needs to counsel the donor regarding the risks involved and the Commanding Officer needs to be aware of the 30 day minimum grounding with the potential for longer grounding. CO approval for donation is required.

**WAIVER COMMENTS**: Not considered disqualifying and waiver not required, provided:

- 1. Minimum of 30 days has elapsed since the bone marrow donation
- 2. Post-donation symptoms have resolved
- 3. Hematocrit is greater than or equal to 38% for males, 35% for females
- 4. The remaining Complete Blood Count (CBC) with differential is within normal limits.

Post-donation CBC may take up to six months to return to normal. A waiver for designated members is required if post-donation symptoms persist or if CBC results do not return to normal after six months. Waivers will not be considered for applicants.

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- <u>Hematology/Oncology or Internal Medicine</u> evaluation with recommendation of return to flight status, no restrictions <u>documented</u> on last clinical note (electronic or paper).
- <u>Hematology/Oncology or Internal Medicine</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- If H<u>ematology/Oncology or Internal Medicine</u> recommends restrictions, then documentation of physical limitations and expected duration (permanent vs temporary).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

## AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Routine Submission

REQ		- 6 4	_

Flight Surgeon comment regarding interval history.

## 17.8 MALARIA

Last Revised: September 15 Last Reviewed: September 15

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	Χ	X	X	Х	Х	Х
NCD							
WR	case-by-	case-by-	case-by-	case-by-	case-by-	case-by-	case-by-
VVIX	case 1	case 1	case 1	case 1	case 1	case 1	case 1
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB	Not Require	d.					

1. Waiver considered on a case-by-case basis.

**AEROMEDICAL CONCERNS:** The condition, its treatment, or its sequelae can adversely affect the flight performance, mission, or safety. Active disease is considered disqualifying until resolved. Prophylactic medications have restrictions and require an initial grounding period. Malaria is an important parasitic disease in humans and is endemic in over 100 countries. Over 3 billion people are at risk of developing malaria and 1-2 million die each year. This translates to about 150 to 300 deaths each and every hour. Although it is rare in the United States, it is of particular concern for military members who are traveling to endemic regions of the world. Additionally, the military accounts for 90% of the malaria cases imported into the United States.

The primary concern for the military member and aviator is prevention of the disease. In addition to vector control and personal protective measures, chemoprophylaxis is indicated for areas with endemic malaria. The primary drugs used in the prophylaxis of malaria are chloroquine, doxycycline, and atovaquone/proguanil (Malarone). Chloroquine and doxycycline require an 48 hour initial grounding period to assess tolerance and idiosyncratic reaction, while Malarone requires a 24 hour initial grounding period for the same reason.

Primaquine is only be used in special circumstances where chloroquine, doxycycline, or Malarone are clearly contraindicated and requires a 48 hour initial grounding period. Mefloquine is uncommonly used due to potential neuropsychiatric side effects. As such, Mefloquine requires grounding for the entire time the member is taking this medication.

The following guidance applies only to aeromedical disposition. Treatment of malaria should be accomplished under close supervision of infectious diseases or other appropriate specialists as circumstances dictate. Proper chemoprophylaxis is determined by the appropriate Fleet, Force, or Unit Medical Officer. If flight surgeons have questions regarding proper chemoprophylaxis they are encouraged to call the Navy Environmental and Preventive Medicine Unit (NEPMU) in their region or the Centers for Disease Control (CDC) and to check with the appropriate Combatant/Component Command regarding the preferred drugs for chemoprophylaxis for their region.

Diagnosis/ICD-9 CODE:

V07.39 Need for other prophylactic chemotherapy

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- <u>Infectious Diseases or Internal Medicine</u> evaluation with recommendation of return to flight status, no restrictions <u>documented</u> on last clinical note (electronic or paper).

- <u>Infectious Diseases or Internal Medicine</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- <u>Infectious Diseases or Internal Medicine</u> recommends restrictions, then documentation of physical limitations and expected duration (permanent vs temporary).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

## AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Routine Submission
REQUIREMENTS	

Flight Surgeon comment regarding interval history.

#### **APPENDICIES**

#### References:

Centers for Disease Control and Prevention. *Malaria*. Retrieved from <a href="http://www.cdc.gov/malaria/">http://www.cdc.gov/malaria/</a>

Navy and Marine Corps Public Health Center. *Pocket Guide to Malaria Prevention and Control*. Retrieved from

http://www.med.navy.mil/sites/nmcphc/Documents/Forms/DispForm.aspx?ID=4100

## 17.9 URTICARIA, ANGIOEDEMA & ANAPHYLASIS

Last Revised: September 15 Last Reviewed: September 15

Significant changes: 1) New addition to ARWG.

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	X	Χ	Χ	X	X	X	Х
NCD							
WR	X <sup>1</sup>	$X^2$	$X_3$	$X_3$	$X_3$	$X_3$	$X_3$
WNR							
LBFS	No	No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB		May be required when the condition is severe, unresponsive to therapy, and interferes with the satisfactory performance of duty. (SECNAVINST 1850.4 series, encl (8)).					

- 1. Waiver can be recommended, if the reaction trigger is identified and avoidable, not associated with anaphylaxis, limited to skin manifestation, and currently asymptomatic without need for therapy.
- 2. Waiver can be recommended, if not associated with anaphylaxis and limited to skin manifestation, either asymptomatic or controlled with ARWG-approved medications, and condition and therapy do not interfere with wearing of oxygen mask.
- 3. Waiver can be recommended, if the condition is limited to skin manifestation, is either asymptomatic or controlled with ARWG-approved medications, and both the condition and therapy do not interfere with wearing of oxygen mask.

**AEROMEDICAL CONCERNS:** These conditions or their sequelae can adversely affect the flight performance, mission, or safety. Any history of anaphylaxis, including but not limited to idiopathic and exercise induced, anaphylaxis to venom including stinging insects, food or food additives, or to natural rubber latex, is disqualifying. Any history of angioedema including hereditary angioedema is disqualifying. Any current or history of chronic/recurrent urticaria is disqualifying. Urticaria and angioedema can both be caused by mast cells and basophils in tissue which release mediators causing the reaction. The reaction may include circumscribed, raised, erythematous plagues (also called hives, welts, or wheals), pruritus, swelling of lips or other oral structures. Urticaria is typically more superficial than angioedema; the latter caused by mast cells and basophils deeper in skin structures. Urticaria may be acute or chronic; acute suggests condition has been present for less than 6 weeks. Potential triggers of urticarial and angioedema include infections, IgE-mediated allergic reactions, drugs, stinging insects, latex, food or food additives. Angioedema may also be caused by bradykinin and reaction may take days to weeks to manifest such as in the case of angiotensin-converting enzyme inhibitorinduced angioedema. Masks have been known to cause urticara (see references) and the primary aeromedical concerns are: impairment in wearing the oxygen mask, distracting pruritus, and compromise of airway in case of involvement of oral structures.

### Diagnosis/ICD-9 CODE:

V13.3 Personal History of Disease of Skin and Subcutaneous Tissue

708.0 Allergic Urticaria

708.1 Idiopathic Urticaria

708.8 Other Specified Urticaria

708.9 Unspecified Urticaria

## SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from allergy/immunology care with recommendation of return to flight status and no restrictions **documented** on last clinical note (electronic or paper).

- If <u>allergy/immunology</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>Allergy/immunology</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

#### AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	
REQUIREMENTS	

If chronic urticaria, annual submission with AMO comment addressing symptoms and any need for therapy. If history of and resolved, routine submission with AMO comment addressing symptoms and any need for therapy.

#### **APPENDICIES**

#### References:

Bingham, C.O. (2014). New onset urticaria. In S. Saini & J. Callen (Eds.), *UpToDate*. Retrieved from http://www.uptodate.com/home

Carter, D., Grossman, A., Pokroy, R., Azaria, B., & Goldstein, L. (2006). Evaluation of systemic allergy in a jet aviator. *Allergy and Asthma Proceedings*, *5*, 429-430.

Gan, W., Koh, C., & Low, R. (2010). Contact urticaria from an oxygen mask in a military pilot. *Aviation, Space, and Environmental Medicine, 81*, 785-788.

Zuraw, B., & Bingham, C.O. (2014). An overview of angioedema: Clinical features, diagnosis, and management. In S. Saini (Ed.), *UpToDate*. Retrieved from http://www.uptodate.com/home

## 17.10 REACTIVE ARTHRITIS, CONJUNCTIVITIS, URETHRITIS

Last Revised: September 15 Last Reviewed: September 15

Significant changes: 1) Changed name from Reiter's Disease to reactive arthritis, conjunctivitis, urethritis

	Applicant	Class I			Class II	Class III	Class IV
		SG 1	SG 2	SG 3			
CD	Х	Χ	X	X	Х	Х	Х
NCD							
WR		case-by- case	case-by- case <sup>1</sup>	case-by- case <sup>1</sup>	case-by- case <sup>1</sup>	case-by- case <sup>1</sup>	case-by- case
WNR	Х						
LBFS		No	No	No	No	No	No
<b>EXCEPTIONS</b>							
LIMDU/PEB		May be required when the condition is severe, unresponsive to therapy, and interferes with the satisfactory performance of duty. (SECNAVINST 1850.4 series, encl (8)).					

1. Waiver are considered on a case-by-case basis for designated personnel

**AEROMEDICAL CONCERNS:** The condition or its treatment can adversely affect the flight performance, mission, or safety. Current or history of this condition is considered disqualifying. The arthritis and conjunctivitis can be distracting in flight. Further, the condition can be difficult to manage and may require medical therapy that is not approved for aviation or that requires special aeromedical considerations.

Diagnosis/ICD-9 CODE:

099.3 Reactive Arthritis, Conjunctivitis, Urethritis

#### SERVICE MEMBER MUST COMPLETE PRIOR TO INITIATING WAIVER

- Released from *IM or Rheumatology* care with recommendation of return to flight status and no restrictions **documented** on last clinical note (electronic or paper).
- If <u>IM or Rheumatology</u> recommends restrictions, then documentation of physical and/or mental limitations and expected duration (permanent vs temporary).
- <u>IM or Rheumatology</u> recommendation for follow on care <u>documented</u> on last clinical note (electronic or paper).
- Copies of any prior PEB
- Surgery/Procedure Note (if applicable, electronic or paper).
- Email or provide administrative information to include command UIC, command address, personal address, phone number, designator, flight hours (total and last 6 months), primary aircraft flown, and years of service.

## AEROMEDICAL SUMMARY REQUIRED DOCUMENTATION BY AEROMEDICAL OFFICER

All associated documentation.

FOLLOW UP	Annual Submission
REQUIREMENTS	

Specialist Evaluation: IM or rheumatology follow-up

<u>Labs</u>: As recommended by specialist <u>Imaging</u>: As recommended by specialist

Flight Surgeon Comment: With respect to symptoms, need for any therapy including

medications, effectiveness of therapy, adverse effects of therapy

## **APPENDICIES**

## References:

Yu, D. T. (2015). Reactive arthritis. In J. Sieper, and P. Romain (Eds.), *UpToDate*. Retrieved from http://www.uptodate.com/contents/reactive-arthritis?source=search\_result&search=reactive+arthritis&selectedTitle=1%7E105