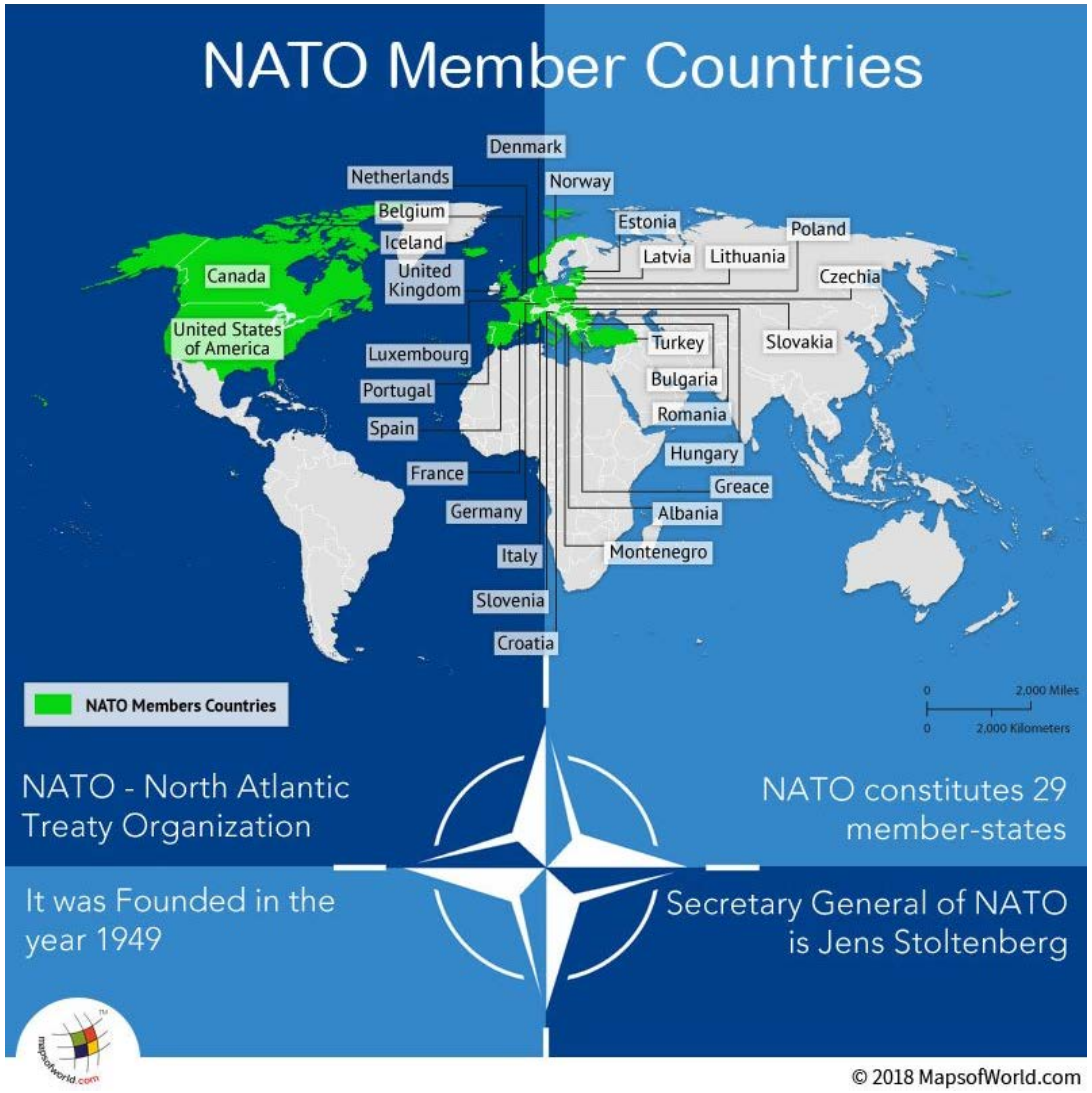
Pulmonary Screening Policies in NATO Countries



Major Erik Frijters, RNLAF
Major Karsten Lindgaard, RDAF

Background

- In 2018 NATO HFM-299 formed: Pulmonary Screening of Aircrew

➢ No uniform policy regarding acceptable conditions

➢ No uniform policy about treatment

- Questionnaire sent out to NATO and PfP nations

- 15 Returned Questionnaires, 14 Countries

SCIENCE AND TECHNOLOGY ORGANIZATION

S&T organization

www.sto.nato.int

SHORT OF BREATH

> NASA URGES DEEPER STUDY OF F-35 PHYSIOLOGICAL EPISODES

> REPORT: USAF SUPPRESSED PILOT CONCERNS TO PROTECT PROGRAM

WHAT PILOTS TOLD NASA ABOUT FLYING THE F-35

"It was trying to kill me."

"Sometimes the F-35 just provides a whole bunch of pressure into the mask for unknown reasons. . . . It makes exhalation difficult."

"Sometimes even in a single exhalation there could be a change in the pressure. So there's like a kick back, and it can actually bite off a radio call."

"There is noticeable change between jets, and some are easy breathers verses more difficult breathers."

"The F-16 had some significant growing pains," said one pilot. "These were overcome, and [it] went on to become one of the most successful fighters in history, and I'm confident the F-35 will do the same."

Pulmonary Screening and Care in Air Crew

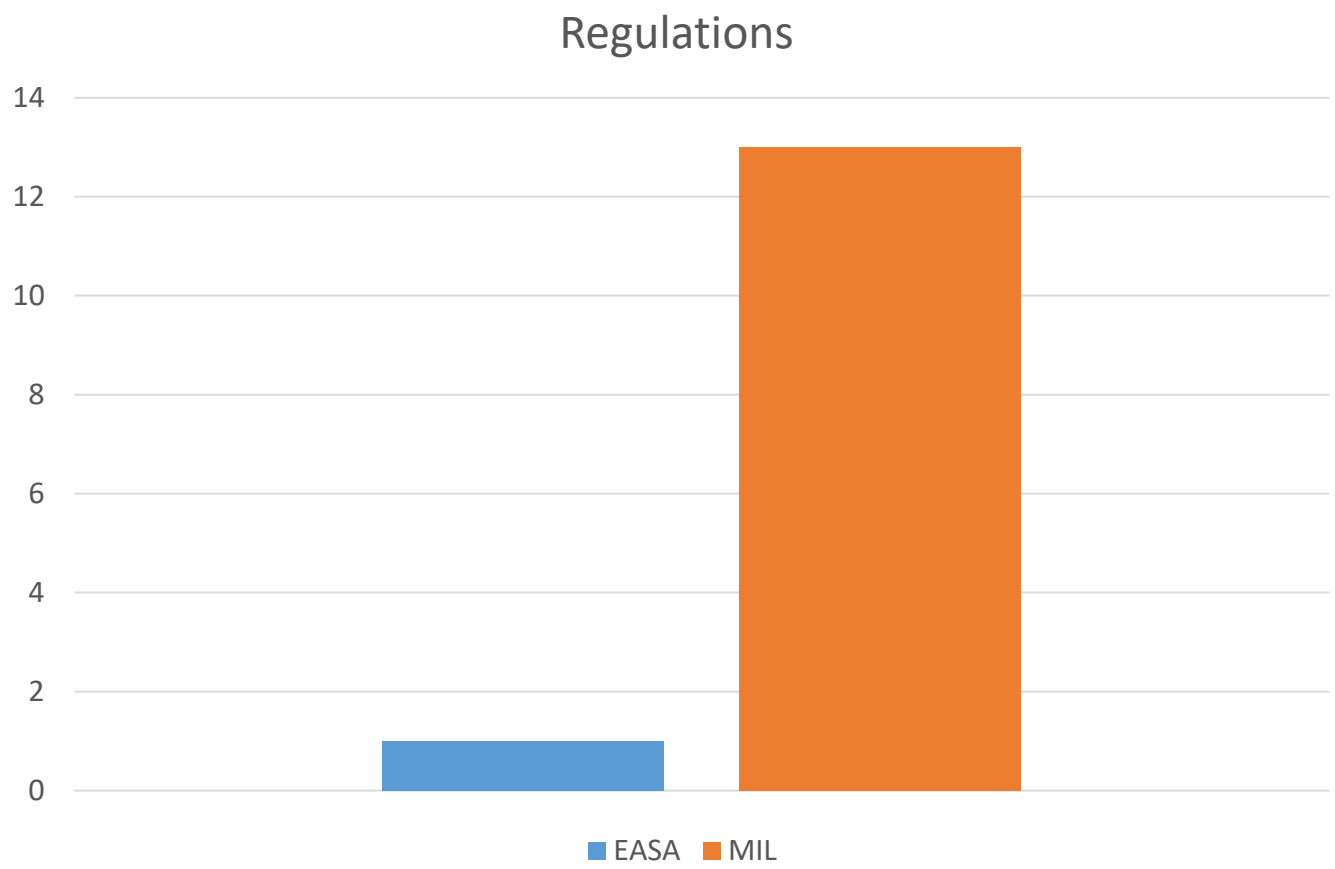
NATO Working Group HFM-299

Date MM DD YY

Dear colleague,
Thank you for participating in this questionnaire!
Please answer the questions as complete as possible:

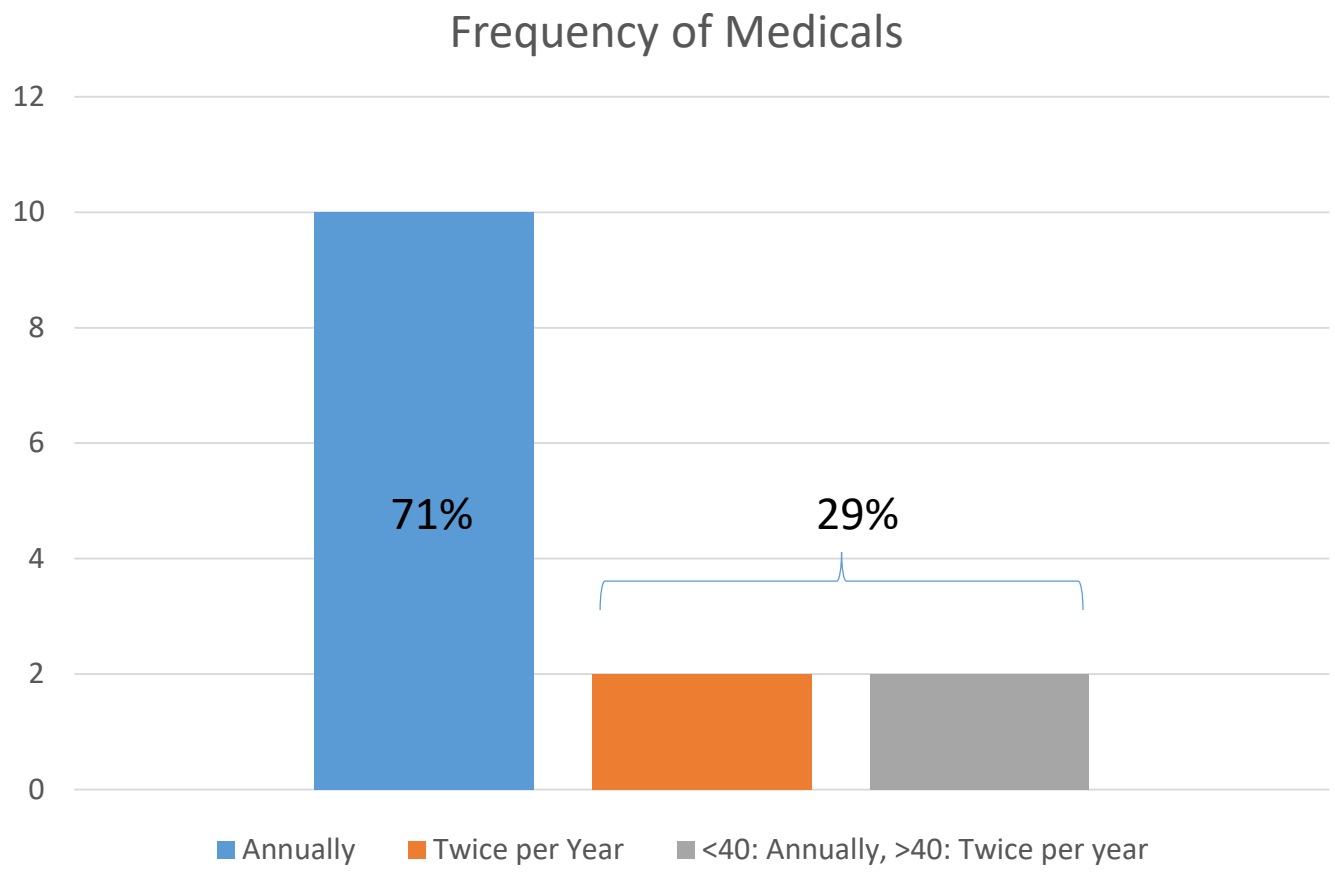
Which regulations do you use for air crew medical exams? (e.g. FAA, EASA, Military Aviation Regulations)	
*How often do your **pilots** get an Aeromedical Exam?*	Choose an item
*Do you do Screening for Pulmonary Conditions in **pilot applicants**?*	Choose an item
*How often do you repeat Pulmonary Testing in **pilots**?* *(Tick all boxes that apply)*	☐ It is only done on initial application ☐ It is done every medical exam ☐ It is repeated on clinical indication ☐ Other (please specify):
What form of Pulmonary Screening do you use? *(Leave blank if not applicable)* *(Tick all boxes that apply)*	☐ Pulmonary Function Testing ☐ Standard Questionnaire (if so, can you send it?) ☐ Medical History ☐ Obtain Medical Records from General Practitioner ☐ Other (please specify):
Do you do other exams for Pulmonary Screening? *(Leave blank if not applicable)* *(Tick all boxes that apply)*	☐ Chest X-Ray ☐ High Resolution CT Chest Scan ☐ VO_2 Max ☐ Bronchial Challenge Test ☐ Body Plethysmography ☐ Bronchial Challenge Test (if so, which one?) ☐ Allergy Testing (if so, how)? ☐ Impulse Oscillometry (IOS) ☐ Other (please specify):

Regulations Used for Military Medical Exam



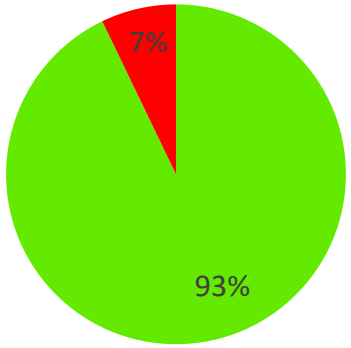
EASA
European Aviation Safety Agency

Frequency of Medical Exams for Aircrew

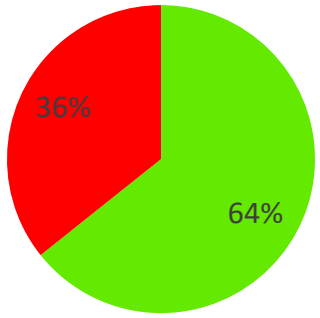


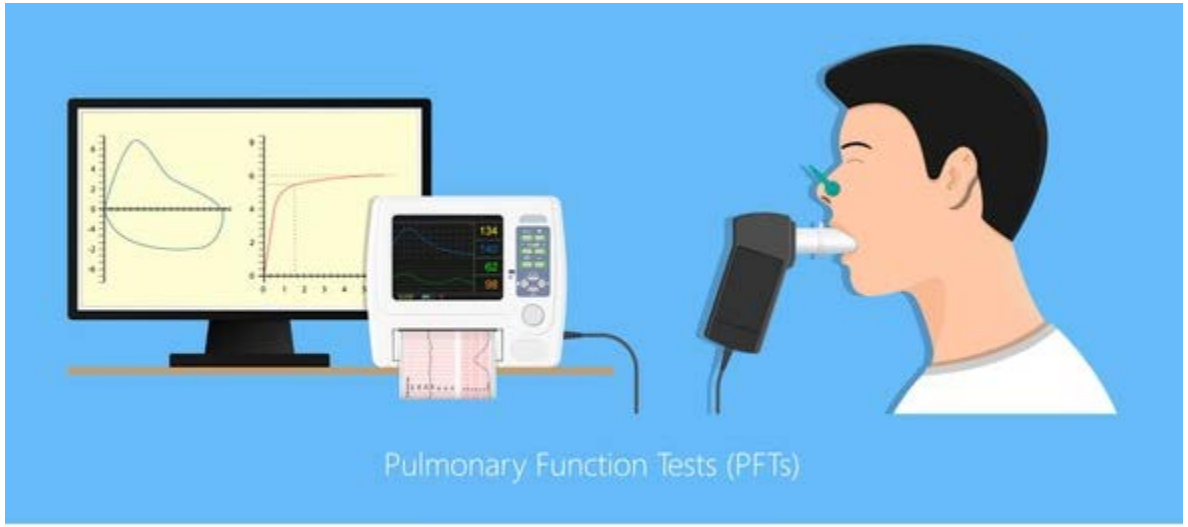
Pulmonary Function Testing (PFT) at aeromedical exam?

Initial exam

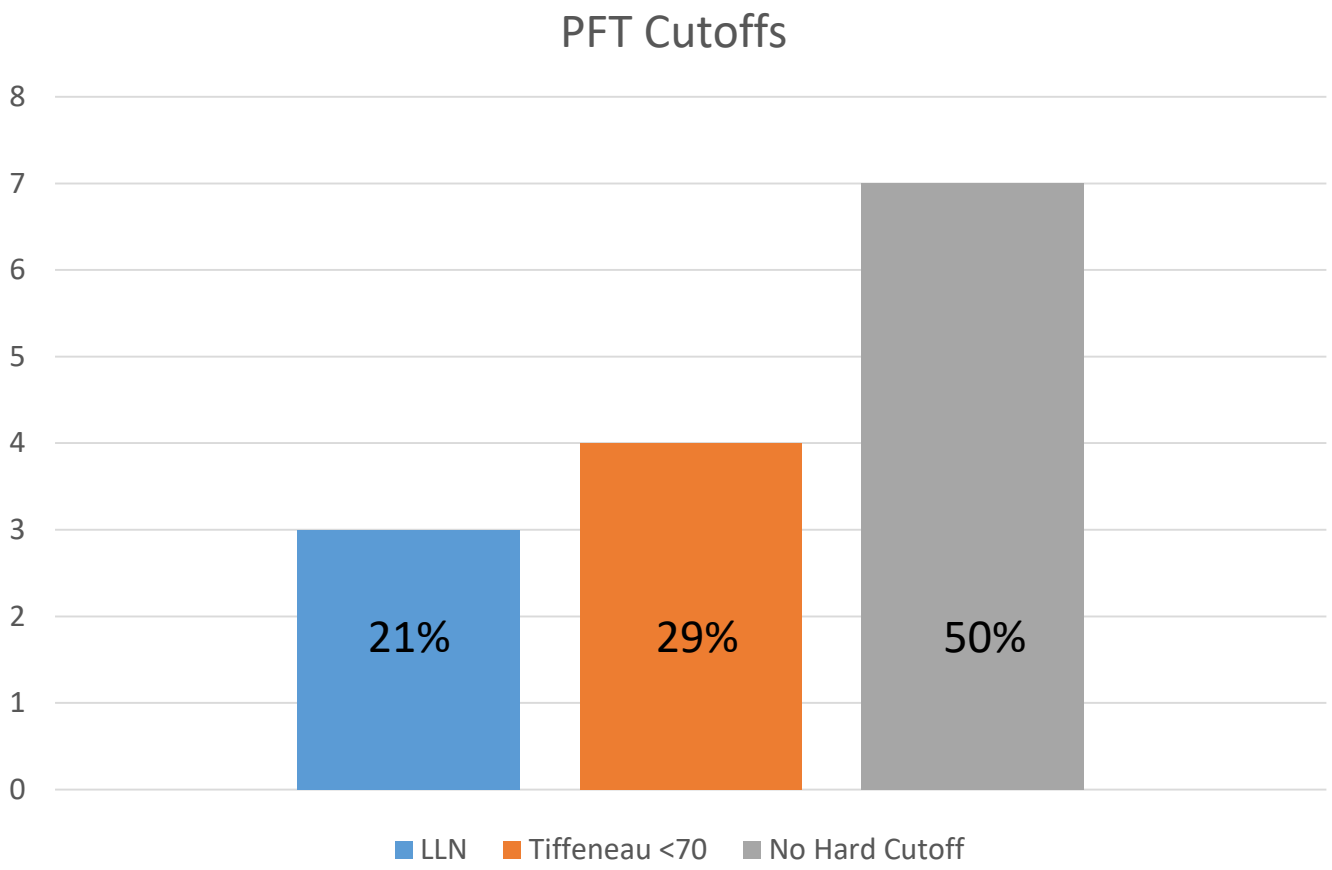


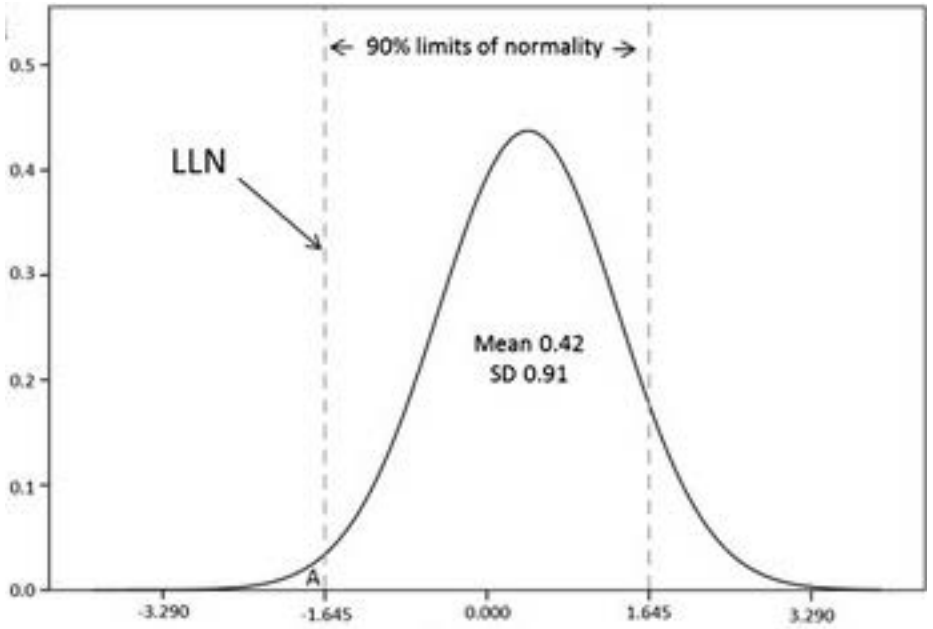
Revalidation exams



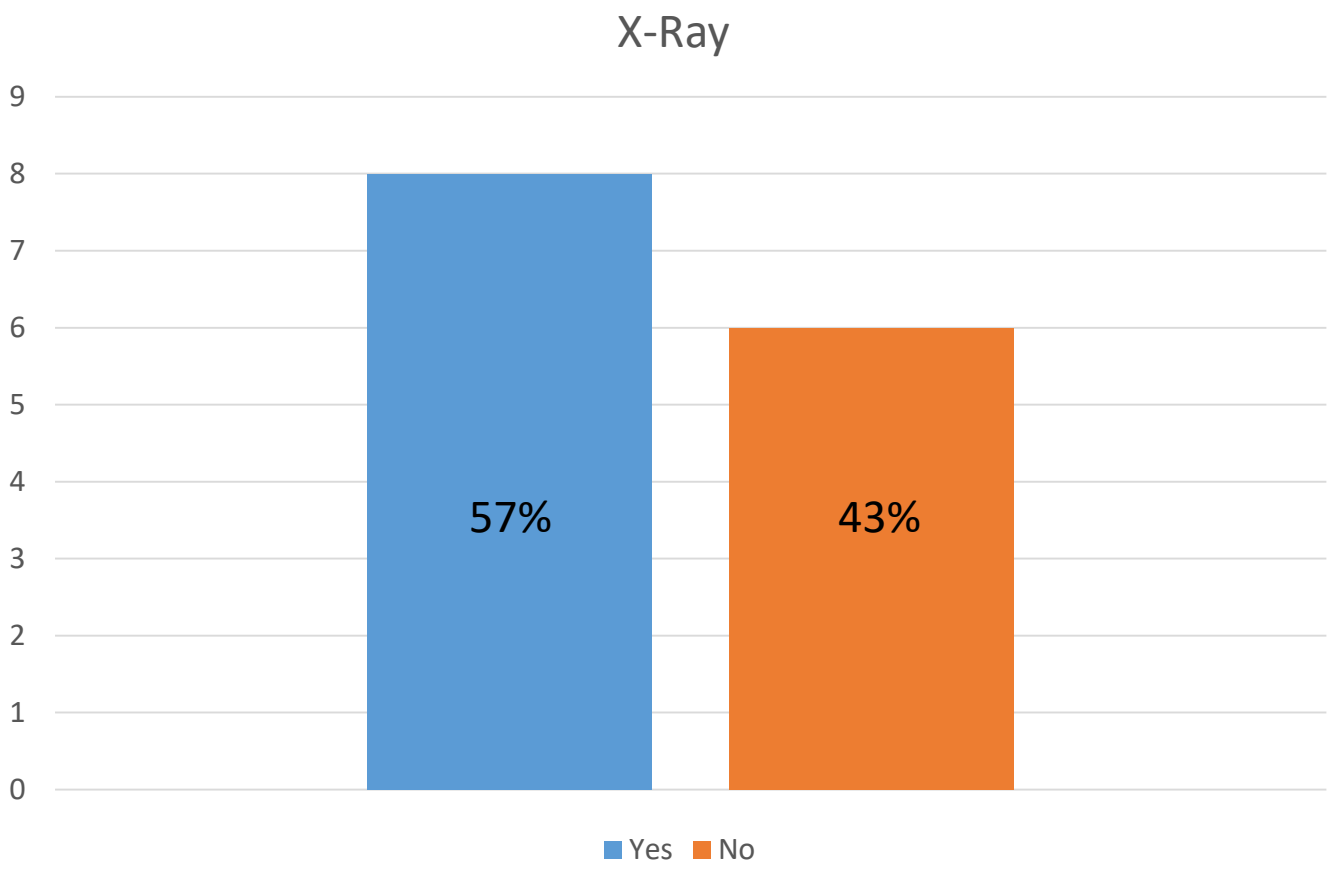


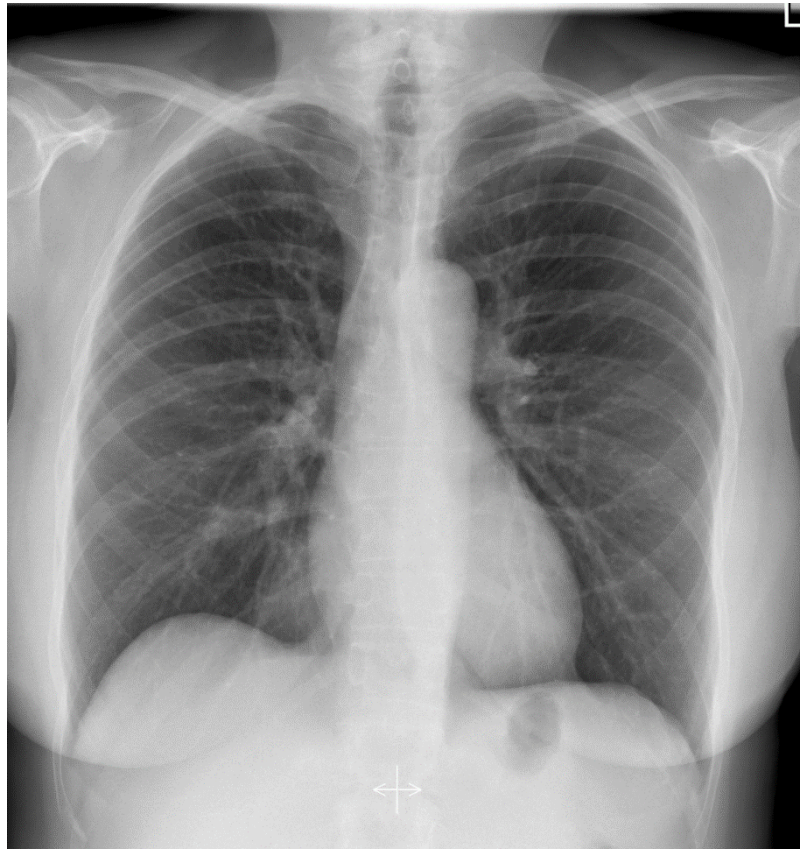
Cutoffs Used for PFT



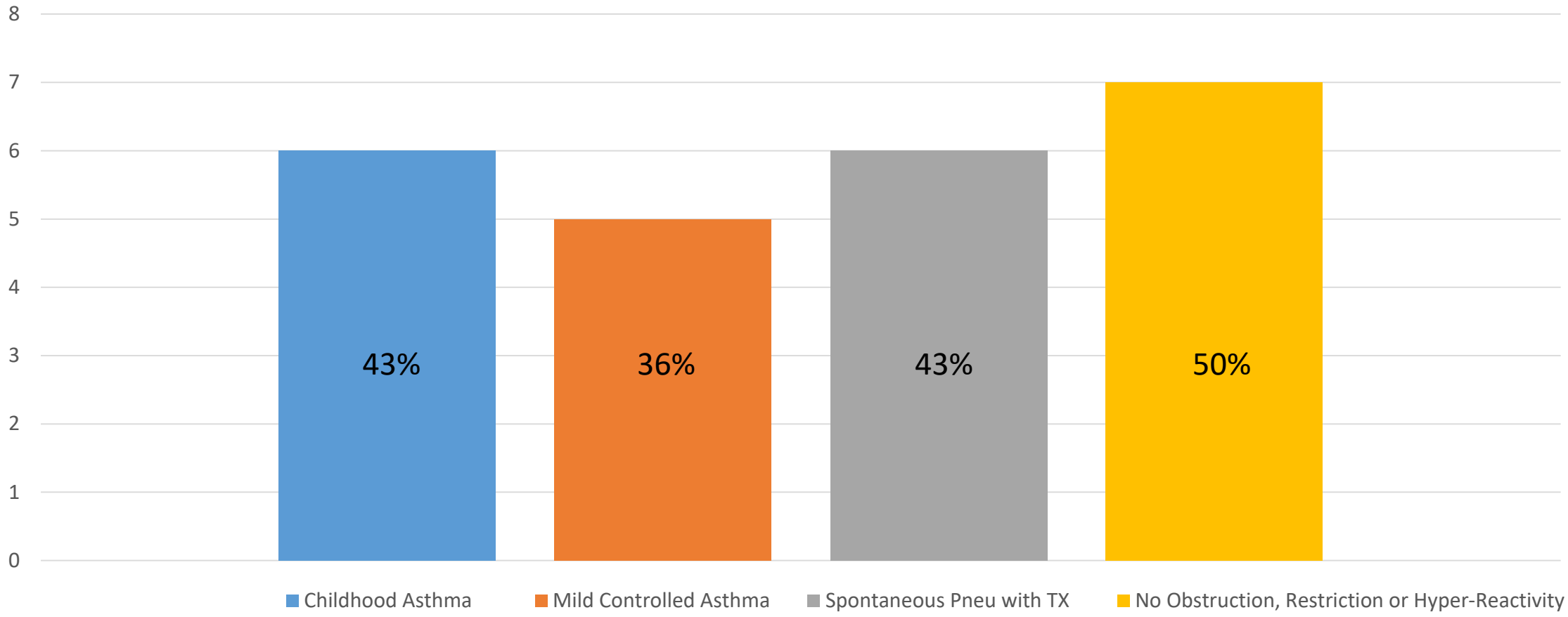


Chest X-Ray

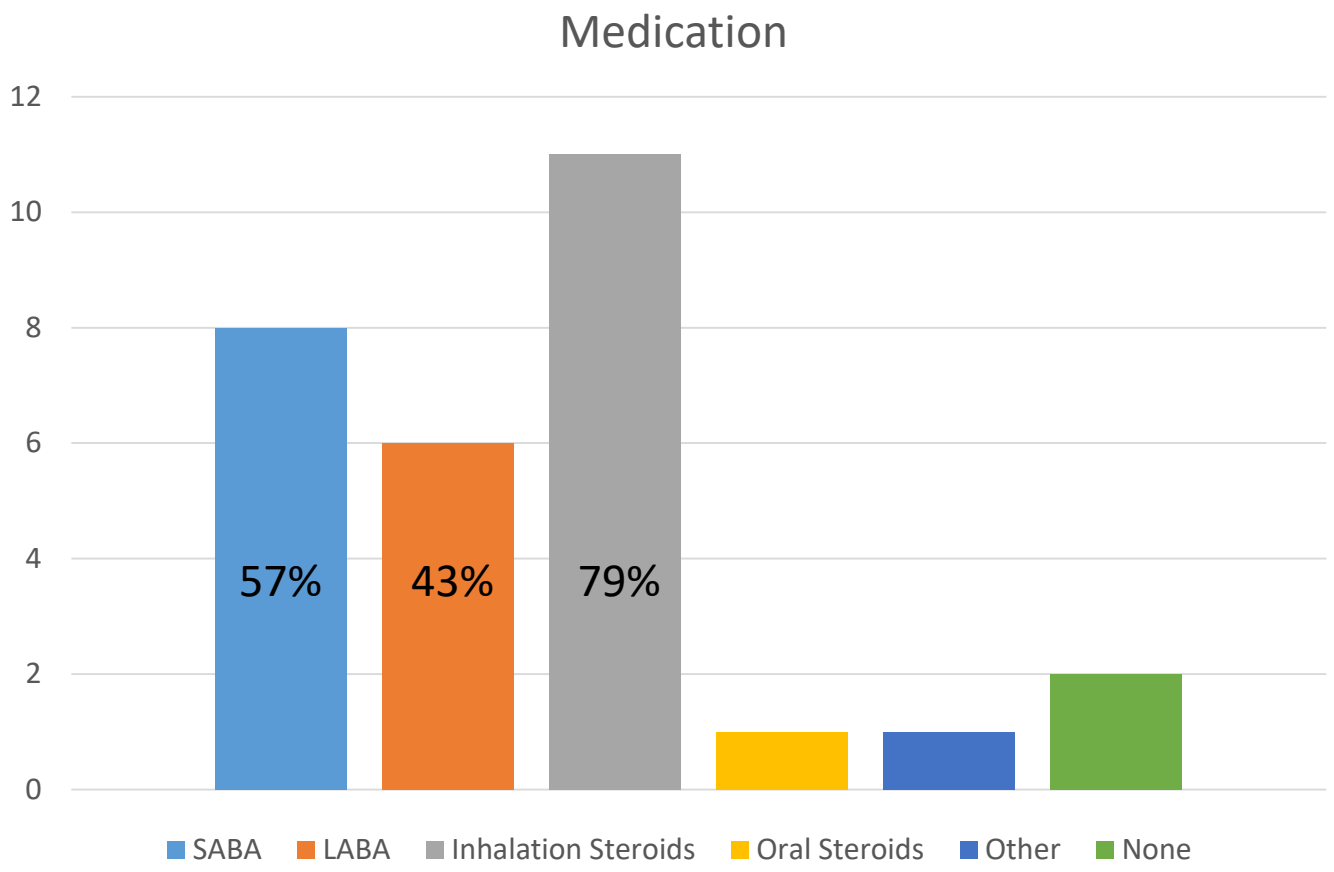




Acceptable Pulmonary Conditions on Initial Exam



Acceptable Medication for Obstructive Airway Disease



SABA: Short Acting Beta Agonist
LABA: Long Acting Beta Agonist

Take Aways

- Interesting Differences in screening policy among NATO partners
- Same challenges: comparable aircraft and general population
- Learn from Each Other!
- Results will be published & recommended practices formulated

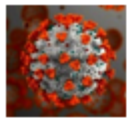




Shout out to NATO Partners

- Please fill out the questionnaire (by the door)

- For the ones that already did before the Pandemic: how has COVID changed your pulmonary screening policies?



COVID SPECIFIC QUESTIONS *(Addition to 2019 questionnaire)*

Have your normal screening procedures towards pilots and aircrew changed due to COVID? *(If yes, please describe how)*	
Do you have mandatory COVID vaccination for aircrew?	☐ Yes ☐ No
Have you experienced an increase in long term grounding of pilot and aircrew due to post-COVID symptoms (impaired pulmonary function, fatigue, etc.)	
Do you have special COVID regulations towards pilots and aircrew? Including return to flight after COVID procedures? (if possible pls. attach them to this questionnaire upon response)	

Questions?