

Titer and Vaccination Explanations – PLEASE READ CAREFULLY (it'll save you time/\$\$)

Serum titers are blood tests that measure whether or not you are immune to a given disease(s). More specifically, a *quantitative serum titer* is a titer with a numerical value indicating your actual degree of immunity to a disease(s). The clinical sites you will be working at require documented proof of immunity in the form of quantitative titers – simply getting the vaccination is not enough. Therefore, **each student must have quantitative titers drawn**, and provide copies of the official laboratory printouts **containing the numerical values** for Mumps, Measles, Rubella, Varicella and Hep B immunity (see examples of sample lab results on the following page).

IMPORTANT THINGS TO BE AWARE OF/PITFALLS TO AVOID:

1. If you don't have a record of the previous vaccinations you've received, get your titers drawn first.
 - Why? Measure your immunity level before getting vaccinated to boost it. Your titers might indicate a high immunity to a specific disease, in which case you won't need to get vaccinated for that disease.
2. Please get the exact type of titers we have asked you to.
 - 3 Common Mistakes Students Make:
 - Quantitative vs. Qualitative titers – quantitative have a numerical value, qualitative simply indicates "immune vs. non-immune" (with no numerical value). **Be sure to get quantitative titers. If you don't get quantitative titers, we will ask you to get them redone.**
 1. **Got Kaiser?** For Rubella and Hep B titers, Kaiser patients will only receive *qualitative* results. If that's the case, you'll need to set up an appointment at Student Health Services to get these two quantitative titers drawn.
 - IgG vs. IgM titers – **you need IgG titers; DO NOT** get labs for IgM titers.
 - Hbs AB IgG vs. HbsAG IgG titers (for Hep B) – **you need Hep B AB (antibody) titers, NOT Hep B AG (antigen) titers.**
3. If the titer for a specific disease shows that you're not immune, you need to get vaccinated or re-vaccinated (also known as getting a booster).
 - Note: This is where previous vaccination records are helpful. Vaccinations for different diseases have different timelines and numbers of shots needed (ex. Varicella – 2 shot series 4-6 weeks apart vs. Hep B – 3 shot series over 6 months). If a specific titer indicates non-immunity, then your physician (or the Nursing Department) can direct you on next steps for vaccination.
4. Once vaccinated, titers **should not** be drawn until 6-8 weeks after the vaccination.
 - Why? If drawn too soon afterwards, the titers will indicate non-immunity as the vaccine will still be in your system. Don't make the mistake of getting a titer drawn prematurely in order to meet the Nursing Department deadline, that doesn't work in your favor.

Lab Order

SAMPLE TITER LAB RESULTS

Order Complete

NANCY NURSING
STUDENT

MRN:

DOB:

[NKA]

LIS Patient ID:

ID Type: MRN

Age at Time of Collection:

Location:

Chart ID:

ICChart Order Number:

Order Date:

LIS Order Number:

Ordering Clinician:

Copy to Clinician(s):

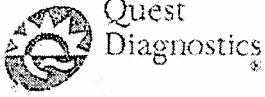
Patient Comments:

Order Comments:

Test Name	Result	Units	Ref. Range	Collected Date/Time	Location*
RUBELLA IMMUNE STATUS	3.41	EIA value			EN
<p>EIA VALUE EXPLANATION OF TEST RESULTS</p> <p>< 0.91 NEGATIVE - NO RUBELLA IGG ANTIBODY DETECTED.</p> <p>0.91 - 1.09 EQUIVOCAL</p> <p>> OR = 1.10 POSITIVE - RUBELLA IGG ANTIBODY DETECTED.</p> <p>THE PRESENCE OF RUBELLA IGG ANTIBODY SUGGESTS IMMUNIZATION OR PAST OR CURRENT INFECTION WITH RUBELLA VIRUS.</p>					
MEASLES IGG AB (RUBEOLA)	3.76	EIA value			
<p>EIA VALUE EXPLANATION OF TEST RESULTS</p> <p>< OR = 0.90 NEGATIVE - NO RUBEOLA (MEASLES) IGG ANTIBODY DETECTED</p> <p>0.91 - 1.09 EQUIVOCAL</p> <p>> OR = 1.10 POSITIVE - RUBEOLA (MEASLES) IGG ANTIBODY DETECTED</p> <p>POSITIVE RESULTS SUGGEST RECENT OR PREVIOUS INFECTION WITH MEASLES (RUBEOLA) VIRUS AND IMPLY IMMUNITY. PATIENTS EXHIBITING EQUIVOCAL RESULTS SHOULD BE RETESTED IN ONE MONTH, IF CLINICALLY INDICATED.</p>					
VARICELLA-ZOSTER VIRUS IGG AB	1.69	EIA value			
<p>EIA VALUE EXPLANATION OF RESULTS</p> <p>< OR = 0.90 NEGATIVE - NO VZV IGG ANTIBODY DETECTED</p> <p>0.91 - 1.09 EQUIVOCAL</p> <p>> OR = 1.10 POSITIVE - VZV IGG ANTIBODY DETECTED</p> <p>A POSITIVE RESULT INDICATES THAT THE PATIENT HAS ANTIBODY TO VZV. IT DOES NOT DIFFERENTIATE BETWEEN AN ACTIVE OR PAST INFECTION. THE CLINICAL DIAGNOSIS MUST BE INTERPRETED IN CONJUNCTION WITH THE CLINICAL SIGNS AND SYMPTOMS OF THE PATIENT.</p> <p>THE PRESENCE OF IGG VZV ANTIBODY IS CONSISTENT WITH IMMUNITY.</p>					
HEPATITIS B SURFACE ANTIBODY (QUANT)	584	miU/ml			
<p>PATIENT HAS IMMUNITY TO HEPATITIS B VIRUS.</p>					
MUMPS VIRUS IGG AB BY EIA: SERUM	2.90	EIA value			
<p>EIA VALUE EXPLANATION OF TEST RESULTS</p> <p>< OR = 0.90 NEGATIVE - NO MUMPS IGG ANTIBODY DETECTED</p> <p>0.91 - 1.09 EQUIVOCAL</p> <p>> OR = 1.10 POSITIVE - MUMPS IGG ANTIBODY DETECTED</p> <p>A POSITIVE RESULT INDICATES THAT THE PATIENT HAS ANTIBODY</p>					

Result = immune

Notice the Range is listed by which results are determined



NON-Immune Sample Titer

PATIENT INFORMATION

REPORT STATUS **Final**

QUEST DIAGNOSTICS INCORPORATED

DOB: Age:
GENDER:
ID: :

ORDERING PHYSICIAN
NAKAMURA, FRED A

REPORTED: 08:39
COLLECTED: 14:14

Test Name	In Range	Out of Range	Reference Range	Lab
VARICELLA-ZOSTER VIRUS IGG AB	1.75		EIA value	EN

EIA VALUE	EXPLANATION OF RESULTS
< OR = 0.90	NEGATIVE - NO VZV IGG ANTIBODY DETECTED
0.91 - 1.09	EQUIVOCAL
> OR = 1.10	POSITIVE - VZV IGG ANTIBODY DETECTED

A POSITIVE RESULT INDICATES THAT THE PATIENT HAS ANTIBODY TO VZV. IT DOES NOT DIFFERENTIATE BETWEEN AN ACTIVE OR PAST INFECTION. THE CLINICAL DIAGNOSIS MUST BE INTERPRETED IN CONJUNCTION WITH THE CLINICAL SIGNS AND SYMPTOMS OF THE PATIENT.

THE PRESENCE OF IGG VZV ANTIBODY IS CONSISTENT WITH IMMUNITY.

MEASLES IGG AB (RUBEOLA) **< OR = 0.90** EIA value EN

EIA VALUE	EXPLANATION OF TEST RESULTS
< OR = 0.90	NEGATIVE - NO RUBEOLA (MEASLES) IGG ANTIBODY DETECTED
0.91 - 1.09	EQUIVOCAL
> OR = 1.10	POSITIVE - RUBEOLA (MEASLES) IGG ANTIBODY DETECTED

POSITIVE RESULTS SUGGEST RECENT OR PREVIOUS INFECTION WITH MEASLES (RUBEOLA) VIRUS AND IMPLY IMMUNITY. PATIENTS EXHIBITING EQUIVOCAL RESULTS SHOULD BE RETESTED IN ONE MONTH, IF CLINICALLY INDICATED.

*Result indicates
Not immune to
Measles*

Performing Laboratory Information:

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Laboratory Director: Don Nakamura MD, PhD