|  |
| --- |
| **Triglycerides, Body Fluid** |
|  |
| **Triglycerides, Drain Fluid** |
| Clinical Indications | See Clinical Indications for individual source fluid types |
| Detection of chyle leakage |
|  |
| Reference Interval and/or Interpretive Information | Drain fluid triglycerides should be interpreted in the context of source (e.g., pleural, peritoneal, etc.) and in correlation with serum results and/or other clinical evidence. |
| Frequently used in the detection of chyle leakage. [1,2,3,4,5] |
| See comments under each fluid type, as applicable |
|  |
| References | [1] Roh JL, Kim DH, Park CI. 2008. Prospective identification of chyle leakage in patients undergoing lateral neck dissection for metastatic thyroid cancer. Ann Surg Oncol. 15(2):424-9.  |
| [2] Roh JL, Yoon YH, Park CI. 2008. Chyle leakage in patients undergoing thyroidectomy plus central neck dissection for differentiated papillary thyroid carcinoma. Ann Surg Oncol. 15(9):2576-80. |
| [3] Taylor J, Jayasinghe S, Barthelmes L, Chare M. 2011. Chyle leak following axillary lymph node clearance – a benign complication: review of the literature. Breast Care. 6:130-132.  |
| [4] Wilkinson J, Pennefather SH, McCahon RA. 2011. Thoracic Anesthesia. Oxford University Press: New York, NY. ISBN: 978-0-19-956309-8. |
| [5] Leaper D, Whitaker I. 2010. Post-operative complications. 2nd Ed. Oxford University Press: New York, NY. ISBN: 978-0-19-954626-8. |
|  |
| **Triglycerides, Pericardial Fluid** |
| Clinical Indications | Supportive information in the diagnosis of chylopericardium [1] |
|  |
| Reference Interval and/or Interpretive Information | Pericardial fluid triglycerides >500 mg/dL and a pericardial fluid cholesterol-to-triglyceride ratio of <1 are two factors which support a diagnosis of chylopericardium. [2,3] |
|  |
| References | [1] Burgess LJ. 2004. Biochemical analysis of pleural, peritoneal, and pericardial effusions. Clin Chim Acta. 343:61-84. |
| [2] Hoit BD. Chylopericardium and cholesterol pericarditis. https://www.uptodate.com/contents/chylopericardium-and-cholesterol-pericarditis. [Accessed:3/14/2024]. |
| [3] Dib C, Tajik AJ, Park S, Kheir ME, Khandieria B, Mookadam F. 2008. Chylopericardium in adults: a literature review over the past decade (1996-2006). J Thorac Cardiovasc Surg. 136:650-656.  |
|  |
| Peritoneal/​Ascites Fluid Triglycerides |
| Clinical Indications | Supportive information in the diagnosis of chylous ascites |
|  |
| Reference Interval and/or Interpretive Information | A peritoneal fluid triglyceride concentration that is greater (usually 2X to 8X higher) than a corresponding serum specimen supports a diagnosis of chylous ascites. [1] |
| Others have suggested absolute triglyceride cutoffs (such as >200 mg/dL or >110 mg/dL) to support the diagnosis of chylous ascites. [2,3] |
| Correlation with a corresponding serum specimen (even when using absolute cutoffs) may provide useful information as triglycerides in serum and chyle may change based on nutritional status. |
|  |
| References | [1] Aalami OO, Allen DB, Organ CH. 2000. Chylous ascites: a collective review. Surgery. 128(5):761-778. |
| [2] Cárdenas A, Gelrud A, Chopra S. Chylous, bloody, and pancreatic ascites.https://www.uptodate.com/contents/chylous-bloody-and-pancreatic-ascites. [Accessed:3/14/2024]. |
| [3] Kopcinovic LM, Culej J. 2014. Pleural, peritoneal, and pericardial effusions – a biochemical approach. Biochemia Medica. 24(1):123-37 |
|  |
| **Pleural Fluid Triglycerides** |
| Clinical Indications | Differentiation of chylothorax from pseudochylothorax |
|  |
| Reference Interval and/or Interpretive Information | Pleural fluid triglycides can be used along with cholesterol to help distinguish chylothorax (triglycerides >110 mg/dL, cholesterol <200 mg/dL) from pseudochylothorax (triglycerides <50 mg/dL, cholesterol >200 mg/dL). [1,2,3,4] |
|  |
| References | [1] Hillerdal G. 1997. Chylothroax and pseudochylothroax. Eur Respir J. 10(5):1157-62.  |
| [2] McGrath EE, Blades Z, Anderson PB. 2009. A systematic approach to the investigation and diagnosis of a unilateral pleural effusion. Int J Clin Pract. 63(11):1653-9.  |
| [3] McGrath EE, Blades Z, Anderson PB. 2010. Chylothorax: aetiology, diagnosis, and therapeutic options. Respiratory Medicine. 104:1-8.  |
| [4] Staats BA, Ellefson RD, Budahn LL, Dines DE, Prakash UB, Offord K. 1980. The lipoprotein profile of chylous and nonchylous pleural effusions. Mayo Clin Proc. 55(11):700-704. |
|  |
| https://www.aruplab.com/bodyfluids |