

QA QUIPS

Quality Assurance Newsletter, College of Physicians and Surgeons of Saskatchewan
3475 Albert Street, Regina, SK S4S 6X6
www.quadrant.net/cpsc

October 2003

"QUALITY IS NOT AN ACT; IT IS A HABIT"

Aristotle

The Laboratory Quality Assurance Program
is moving to:

3475 Albert Street
Regina, Saskatchewan
S4S 6X6

Effective October 16, 2003

This new space was needed to allow expansion for
the *Diagnostic Imaging Quality Assurance Program*.

*All phone, fax and emails remain unchanged.

Sedimentation Rate

Use of the ESR as a screening test to identify patients who have serious disease is not supported by the literature. The Erythrocyte sedimentation rate (ESR) determination is a commonly performed laboratory test with a time honored role. However, the usefulness of this test has decreased as new methods of evaluating disease have been developed. The test remains helpful in the specific diagnosis of a few conditions, including temporal arteritis, polymyalgia rheumatica and, possibly, rheumatoid arthritis. It is useful in monitoring these conditions and may predict relapse in patients with Hodgkin's disease.

Clinical Utility of the Erythrocyte Sedimentation Rate
Malcolm L. Brighton
American Family Physician October 1999

CORD BLOOD SEROLOGIC TESTING

Testing on cord blood is not required on every sample and should only be performed when indicated, for example:

1. In the absence of clinically significant unexpected antibodies in maternal serum, **NO TESTING** of cord blood samples is required, except to aid in diagnosis, assist in neonatal care, or determine RhIG candidacy of Rh-negative mothers.
2. Blood from infants born to Rh-negative women must be tested for Rh, including a test for weak D.
3. In the absence of a complete clinical history, ABO/Rh typing and a DAT should be done.

CARDIAC MARKER STUDY

A study has been conducted to review POCT for cardiac markers and results will be available soon. The main principle to be considered is:

DIAGNOSIS SHOULD NOT BE BASED ON ONE RESULT ONLY.

Happy
Hallowe'en!



POINT-OF-CARE TESTING

POCT continues to accelerate and the Laboratory Quality Assurance Program embraces the principle that no matter where testing is performed, it must ensure quality results. QA/QC is part of that process and the Program will encourage vendors to meet the criteria established which states off-site testing should be held to the same standard as clinical lab testing.

Determination:

- ◆ factors focus on medical efficacy; evidence-based medical decisions & patient outcomes
- ◆ improve patient acuity, criticality, morbidity and mortality
- ◆ rapid response time
- ◆ improve outcomes
- ◆ should be based on sound evaluation, training/certification of personnel

Implementation:

- 1) improve or change clinical strategies, accelerate diagnostic-therapeutic processes, enhance diagnostic insight or resolve diagnostic uncertainty or provide earlier diagnoses
- 2) decrease length of stay; time in critical care
- 3) launch a new therapy, reduce or eliminate transfusions, treatments etc
- 4) increase efficiency for services; improve patient access to services
- 5) prevent patient crises; advance quality of care
- 6) diminish the need for auxiliary services; replace obsolete techniques
- 7) establish QC, test and equipment protocols

We are often asked:

Are patient (coagulation) tests done in duplicate?

The 'standard' states:

Duplicate coagulation testing is necessary when there is no Delta check available and when manipulation of reagents or patient specimens is required to perform testing.

DIGOXIN

There have been questions regarding DIGOXIN reporting.

References state levels should be changed from 0.8-2.0 ng/ml to **1.1 – 2.2 nmol/L**.

The preferred time is pre-dose.

**National Standard of Canada**

CAN/CSA Z15189-03

Medical Laboratories Particular Requirements for Quality and Competence

Contact our office for 30 day loan at (306) 787-8239

Third Party or Alternate Controls

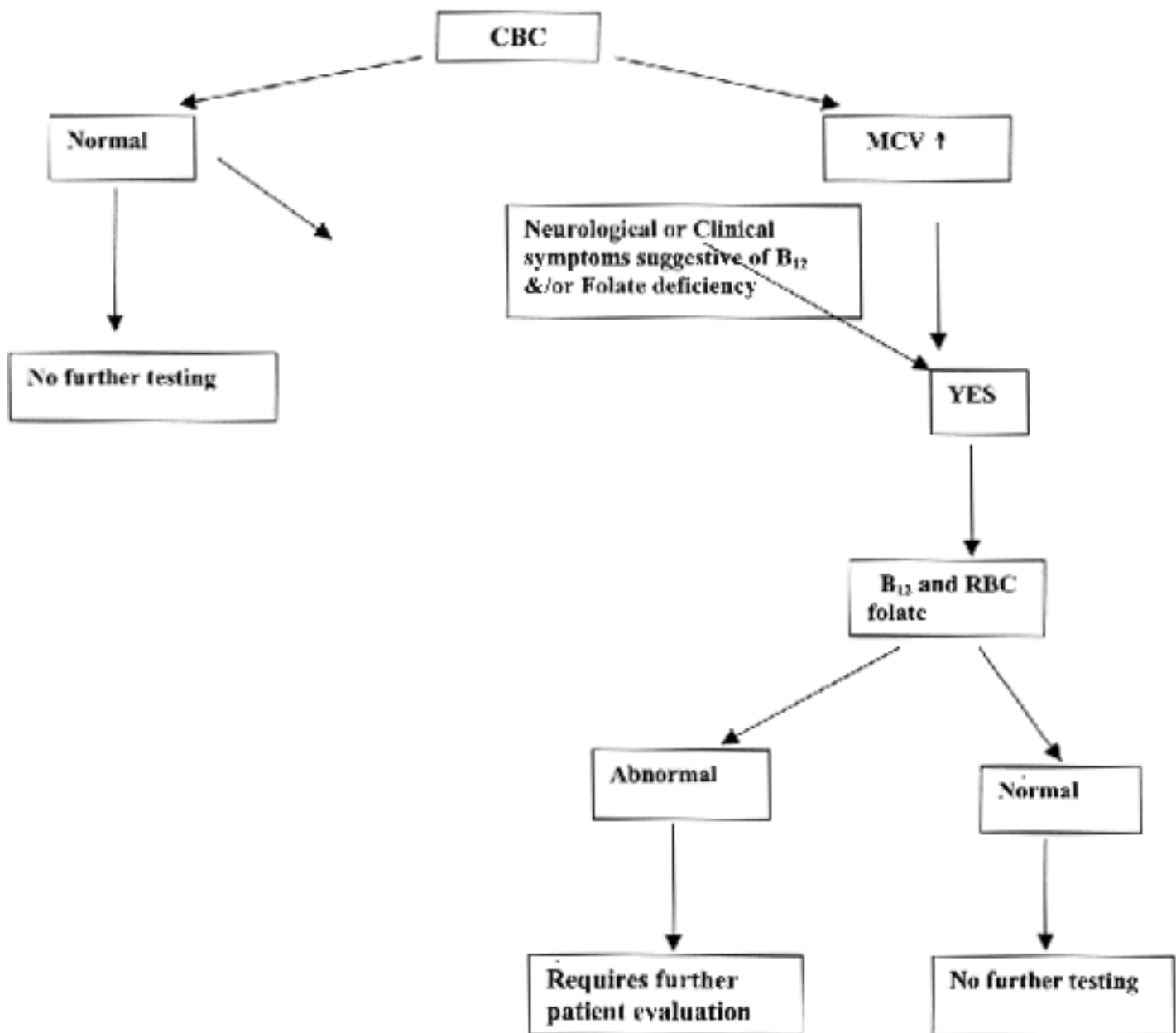
Although not a Quality Assurance standard, it is considered Good Laboratory Practice to use a third party quality control material for Chemistry assays. The third party control refers to internal quality control material supplied by an alternate vendor than the chemistry instrument/reagent system routinely used. Instrument supplier controls should be used for troubleshooting. Using controls that are different from the instrument calibrators is good Quality Assurance practice.

There are several possible controls to consider, but it is recommended to use assayed chemistry controls. These general chemistry controls could be used for most assays.



*Current Indications for
B₁₂ and Folate Investigation*

Measuring both B₁₂ and Folate levels is not necessary in all patients.



Notes:

**B₁₂ tests should not be done if the person is on B₁₂*

**False low B₁₂ in pregnant women and women on oral contraceptives*

Serum folates are not a useful screening tool

Folic Acid Deficiency is rare due to folate fortification in food

RBC folate is more indicative of tissue folate levels

Folate tests will not be done if the person is on folate

Reference Textbook List

Microbiology

- 1) Manual of Clinical Microbiology 8th Edition
Patrick R. Murray, Editor in Chief
American Society for Microbiology
Press, Herndon, VA2003, 2113 pages,
ISBN 1-55581-255-4
(2 Volumes, Hardcover)
- 2) Baily & Scott's Diagnostic Microbiology 11th Edition, Mosby
Ellen Jo Baron, Lance R. Peterson, Sydney M. Finegold, Editors
ISBN 0-3230-1678-2

Transfusion Medicine

- 1) Canadian Society for Transfusion Medicine - most recent version, currently 6th Edition
- 2) AABB Technical manual, most recent addition (14th Edition)

Hematology

- 1) Color Atlas of Hematology
Hematology and Clinical Microscopy Resource Committee, CAP
Eric F. Glassy, Editor
Library of Congress Catalog Card Number: 98-71043
ISBN: 0-930304-66-7
- 2) Clinical Hematology: principles, procedures, correlations 2nd edition
E. Anne Stiene-Martin, Cheryl A. Lotspeich-Steininger, John a. Koepke, Editors
ISBN 0-397-55321-8
Lippincott

Chemistry

- 1) Tietz Fundamentals of Clinical Chemistry 4th Edition
Carl A. Burtis, Edward R. Ashwood, Editors
W. B. Saunders Company
ISBN 0-7216-3763-9

Safety

- 1) Transportation of Dangerous Goods Act and Regulations
Supplement Canada Gazette, Part II
August 15, 2001
- 2) Laboratory Safety CSMLS Guidelines 5th Edition 2001
Gene Shematek, Wayne Wood, Editors

Competency Evaluation

- 1) Canadian Society of Medical Laboratory Science
 PO Box 2830 LCD 1
 Hamilton, ON L8N 3N8
 website www.csmls.org
 Certification - Competency Profiles

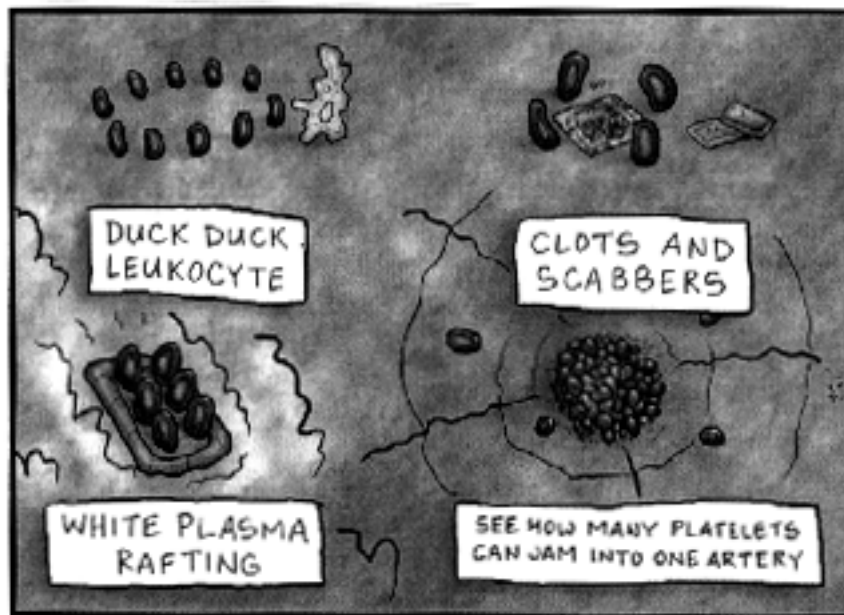
Anatomic Pathology

- 1) Histotechnology: A self Instructional Text 2nd Edition
 ASCP Press, ISBN 0-89189-411-X

Blood Transfusion Errors Jump in UK

By Richard Woodman
 Reuters News & Financial
 Fifteen patients died and many more became seriously ill in the UK and Ireland last year following a sharp increase in blood transfusion errors, according to data released on Tuesday by an independent group of clinicians.
 The group, which runs the Serious Hazards of Transfusion (SHOT) scheme, said reports of "wrong blood" incidents rose 21 percent to 343 in 2002.

"These incidents have resulted in 15 deaths –five definitely due to transfusion, two probably, and eight possibly – and 69 cases of major morbidity," it said in a report.
 "By far the most common error was failure of the bedside checking procedure, which occurred in 30 percent of all cases."
 SHOT called for computer-controlled systems, based on barcodes, to protect patient safety. "These system can also monitor the location and storage status of blood throughout the hospital and improve traceability."



Games blood cells play