

Quadratic formula for glomerular filtration rate (GFR) estimation in Children

The program is written in Java. Sources and executable jar files are available, free of charge.

About the formula

Taking into consideration the importance of estimating GFR in clinical practice, a new quadratic formula using a gold standard marker for measuring GFR which is Inulin clearance has been developed. This quadratic formula will allow pediatricians to estimate GFR in children aged between 2 and 18 years with chronic kidney failure (all stages), with normal renal function, or in children with hyperfiltration.

You may find the program on the CHUV web site at <http://www.chuv.ch/quadraticformula>.

Prerequisite

Your computer should have an up-to-date java runtime environment installed. Check this by visiting the following page : <http://java.com/en/download/testjava.jsp>.

Calculate estimated GFR on line

The screenshot shows a web application window titled "Quadratic Formula for Glomerular Filtration Rate in Children". The interface includes the following elements:

- Sex:** A dropdown menu currently set to "Male".
- Height:** A text input field with a "[cm]" label to its right.
- Creatinine:** A text input field with a "To select" dropdown menu to its right.
- Age:** A text input field with a "[year]" label to its right.
- Compute:** A button labeled "Compute" next to a large empty text input field for the result.
- Footer:** The text "Unité Universitaire Romande de Néphrologie Pédiatrique-Site CHUV" is displayed at the bottom of the window.

Enter the following parameters:

Sex: *Male or Female*

Height: in centimeters

Creatinine value: in mg/dl or $\mu\text{mol/l}$

Age: in years

Click on Compute to get the estimated glomerular filtration rate (eGFR).

Get the source code

Download the dmcp-nephro-formula.zip file from the CHUV web site. Unzip the file to access the source code.

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