

# WELFORD CHART NOTES NEWSLETTER

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## CARDIOVASCULAR RISK CALCULATOR *(User's Manual, pgs. 1343-1345)*

The American Heart Association and the American College of Cardiology issued new guidelines at the end of 2013 for the management of hyperlipidemia. Included in those guidelines is a new program to estimate a patient's 10 year risk of cardiovascular disease. This program is available as a Microsoft Excel spreadsheet which is distributed with **Welford Chart Notes**. The spreadsheet takes certain data about a patient and performs the calculations. You must have Microsoft Excel installed on your computer in order to perform the calculations.

**Welford Chart Notes** can export the required data from various places within the program (Name Editor, Lab Book, etc.) and place it into the spreadsheet and then bring the result back to **Welford Chart Notes**. Let's see how this is done:

1. Press Tools\CV Risk Calculator.
2. Enter the name of the patient, like Kelly Erickson, and press **OK**.

The calculator looks up information as follows:

- Age, Race, and Sex in the Name Editor. The calculator only applies to patients between the ages of 20 and 79, and the lifetime risk can only be calculated between the ages of 20 and 59.
- Cholesterol, HDL, and Systolic Blood Pressure in the Lab Book.
- Treated Blood Pressure: a diagnosis of Hypertension (or related such as Essential Hypertension) in the Diagnosis Editor, combined with an antihypertensive medication in the Diagnosis Editor.
- Diabetes? in the Diagnosis Editor.
- Smoker? Smoking Status, then the Social History Expander, then any User-Defined Expanders having to do with Smoking or Habits, and finally in the Lab Book under a test called SMOKING.

CV Risk Calculator

Patient: ANDY JACKSON Birthdate: 5-3-1972 Code: andyj

Age:	43
Sex:	M
Race:	Not black
Cholesterol:	232
HDL:	47
Systolic Blood Pressure:	138
Treated Blood Pressure?	No
Diabetic?	No
Smoker?	No

10-Year Risk of ASCVD: 2.6%

Lifetime Risk of ASCVD: 46.0%

OK Cancel Help Jump

CV Risk Calculator

Patient: KELLY ERICKSON Birthdate: 8-15-1953 Code: 12345

Age:	61
Sex:	F
Race:	Not black
Cholesterol:	178
HDL:	80
Systolic Blood Pressure:	
Treated Blood Pressure?	Yes
Diabetic?	No
Smoker?	No

10-Year Risk of ASCVD:

Lifetime Risk of ASCVD: Only can calculate for age 20-59

Enter 90-200 for SBP value

OK Cancel Help Jump

Note that if you haven't recorded this information in the relevant locations, the calculation will be off. For example if the patient is a smoker but you haven't recorded that anywhere, then the Calculator will assume

the patient is a non-smoker. If the cholesterol, HDL, or systolic blood pressure hasn't been recorded in the Lab Book, the program notifies you that the information is missing and thus it cannot perform the calculation.

The program displays both the 10 year risk of atherosclerotic cardiovascular disease and the lifetime risk of it in the bottom window. If the 10 year risk is  $\geq 7.5\%$ , this is displayed in red, because this is the group of patients for whom the American Heart Association/American College of Cardiology recommends statin therapy (in addition to other high risk groups such as patients with a history of cardiovascular disease or diabetes between the ages of 40 and 75).

You can perform "what-if" analyses for your patient after running the Cardiovascular Risk Calculator by pressing **Jump\Excel**. This opens the Excel spreadsheet with your patient's data filled in. You can change entries in column C, lines 2-11 to see the effect it would have on cardiovascular risk if a modifiable risk factor were altered. For example, you could show the patient his or her reduction in risk if the patient gave up smoking by changing the value in column C line 11 from "Y" (yes) to "N" (no).

	A	B	C	D	E	F	H
1			Enter patient values in this column				
2	Risk Factor	Units	Value	Acceptable range of values	Optimal values		
3	Sex	M (for males) or F (for females)	M	M or F			
4	Age	years	43	20-79			
5	Race	AA (for African Americans) or WH (for whites or others)	WH	AA or WH			
6	Total Cholesterol	mg/dL	232	130-320	170		
7	HDL-Cholesterol	mg/dL	47	20-100	50		
8	Systolic Blood Pressure	mm-Hg	138	90-200	110		
9	Treatment for High Blood Pressure	Y (for yes) or N (for no)	N	Y or N	N		
10	Diabetes	Y (for yes) or N (for no)	N	Y or N	N		
11	Smoker	Y (for yes) or N (for no)	N	Y or N	N		
12							
13	Your 10-Year ASCVD Risk (%)		7.5				
14	10-Year ASCVD Risk (%) for Someone Your Age with Optimal Risk Factor Levels (shown above in column E)		0.9				
15							
16	Your Lifetime ASCVD Risk* (%)		50.0				
17	Lifetime ASCVD Risk (%) for Someone at Age 50 with Optimal Risk Factor Levels (shown above in column E)		5.0				
18							
19	*This is the lifetime ASCVD risk for an individual at age 50 years with your risk factor levels. In rare cases, 10-year risks may exceed lifetime risks given that the estimates come from different approaches. While 10-year risk estimates are derived from						

  

The bar chart displays the predicted risk percentages for four categories. The y-axis represents the Predicted Risk (%) from 0.0 to 60.0. The x-axis lists the categories: Your 10-Year ASCVD Risk (7.5%), 10-Year ASCVD Risk for Someone Your Age with Optimal Risk Factor Levels (0.9%), Your Lifetime ASCVD Risk (50.0%), and Lifetime ASCVD Risk for Someone at Age 50 with Optimal Risk Factor Levels (5.0%).

### @CVR and @CVRFull (User's Manual, pg. 1341)

If you type @CVR into the Writer (or embedded within a Template), it is replaced with the 10 year cardiovascular risk for that patient as calculated by the Cardiovascular Risk Calculator. If data are missing that would permit the calculation, then it is replaced with a statement telling you which data are missing.

@CVRFull is replaced with all of the information displayed in the Cardiovascular Risk Calculator, including the values for each of the data items, along with the 10 year and lifetime risk (if they can be calculated).

### ICD-10 CODES

Remember that you must start using ICD-10 Codes on October 1, 2015. **Welford Chart Notes** has incorporated ICD-10 codes since 2012 (Version 6.1). If you have not done so, reread the March, 2012 Newsletter to review the steps you will need to take when switching over to ICD-10 codes.

### SEND US YOUR TIPS

If you have tips, shortcuts, questions, or suggestions for future newsletter topics, please send them to us at:

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