

# The electronic “pregnancy wheel”

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I now use an electronic medical record (EMR) for most aspects of my practice. However, this clinical system still lacks many useful features—and I suspect that this is a common problem for my colleagues using other EMR systems. My EMR, for example, does not automatically keep track of gestational ages (GAs).

Before computerizing my records, I used a round GA calculator, or “pregnancy wheel,” in my practice; I had one in every examination room. I had found an improved paper-based pregnancy wheel, which incorporated information on the clinical management of pregnancy.<sup>1</sup> Because I have access to computers in all areas of my office, I thought that an electronic version of the pregnancy wheel might be an improvement; I also wanted to save a personalized GA calculator for each pregnant patient. I found a useful GA calculator at a medical algorithm website, [www.medal.org](http://www.medal.org). I updated it and modified it to automatically recalculate the gestational age as of the current date. I also added the prenatal tests recommended by the Ontario Antenatal Record on the right side; these print as a separate page. I saved the GA calculator as an Excel template, which means that an original blank copy of the calculator is always saved and can be reused for the next patient.

When I initially see a pregnant woman, I load the GA calculator template. I enter the first day of her last menstrual period in the appropriate cell—her current GA and due date are then automatically calculated. I can add additional information in the “Notes” section at the bottom; for example, “shared prenatal care with Dr Smith.” I save the file using the patient’s last name (eg, click “File,” then “Save As,” then “Jones.xls”) in the “Gestational Ages” folder on my computer. That folder is “shared,” meaning it can be seen on other computers in my office’s network and my resident or nurse can access

the calculator as needed. I print a copy for my patient, who now has her current gestational age and estimated due date as well as a schedule of upcoming prenatal tests. I also attach a copy to the referral letter that I send to my patient’s prenatal care provider.

If the due date changes after an ultrasound, I update the calculator to reflect this. I choose “Estimated date of confinement” by putting the “x” in the appropriate cell, and add the new date. I then resave the calculator with the updated information. The GA calculator is available at <http://ca.briefcase.yahoo.com/mgreiver@rogers.com>. Click on the “Shared” folder then click on the link called “Gestational calculator template”; next, save the file to your own computer.

I think of my current EMR as a work in progress. The fact that I have computers at point of care allows me to complement this system. The electronic GA calculator is personalized for each patient, is automatically updated, contains additional clinical information, and can be printed as needed. It has now supplanted the paper-based pregnancy wheel in my practice. Clinically relevant electronic tools and decision-making support systems should be part of EMRs. Companies need to work with physicians toward integrating such tools into their software programs. 

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#### Competing interests

None declared

#### References

1. Grzybowski S, Nout R, Kirkham M. Maternity care calendar wheel. Improved obstetric wheel developed in British Columbia. *Can Fam Physician* 1999;45:661-6.

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