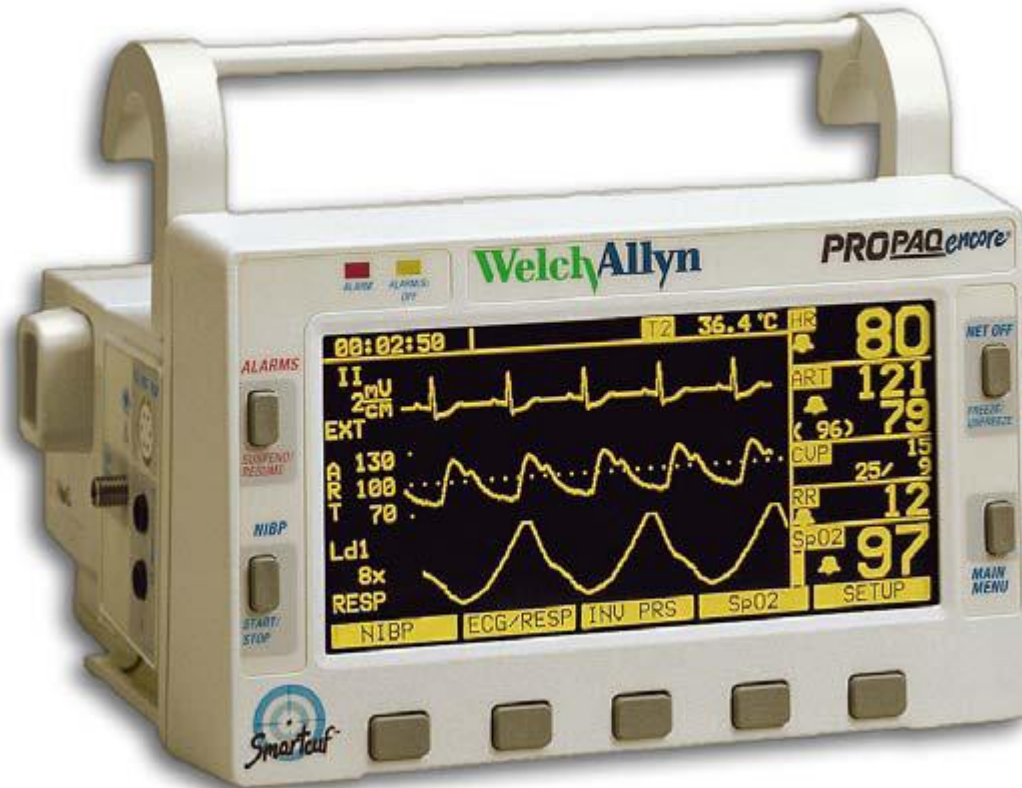# Vital Signs

BiomedGuy

Propaq Encore

Clinical Apps

- **Vital signs** are measures of various physiological statistics:
- body temperature
- pulse rate (or heart rate)
- blood pressure
- respiratory rate

Clinical

- High blood pressure (HBP) or hypertension means high pressure (tension) in the arteries.
- *Heart is working very hard to pump/circulate blood flow*
- Normal blood pressure is below 120/80;
  - blood pressure between 120/80 and 139/89 is called "pre-hypertension",
  - and a blood pressure of 140/90 or above is considered high

Clinical

- *High temperature* suggests infection and perhaps low *white blood count.*
- *Body is working very hard to fight off infection*

Temperature conversion

- C = (F – 32) * 5/9

- F = (C*9/5)+32

Test equipment

- Patient simulator
- 0 to 300mmHg digital pressure meter with bulb
- BP Simulator

PM'd

- Check visual displays/indicators
- Perform safety test
- Check hoses
- Printer tests
- Check sensors
- Check Spo2 cables
- Check temperature probes

System Tests

- The following procedures check that the buttons operate properly, that the display works
- correctly, and that the date is correctly displayed.
- 1. Turn on the monitor.
- 2. Verify that no error messages appear and the monitor correctly powers up.
- 3. Press SETUP > MORE > MORE > SERVICE > YES > MORE > PIXL TST to test the
- display.
- 4. Press CYCLE three times, each time verifying that no pixels are missing.
- 5. Press MAIN MENU twice.
- 6. Press SETUP > WAVE SEL > INSERV to access the inservice features. This generates
- simulated waveforms.
- 7. If dual stream monitor, look for CO_2 Sensor Change - Switching to Mainstream, YES
- or NO.
- 8. IBP screen indicates need to zero P1 or P2.
- 9. Press MAIN MENU.
- 10. Using the appropriate table below as a guide, press the indicated buttons in sequence
- and verify that the monitor responds as indicated and that the buttons do not stick.

Battery Capacity Check

- 1. Use the ac power adapter and charge the monitor for at least 8 hours with the
- monitor turned off (12 hours if a printer or pulse oximeter is attached).
- 2. Disconnect the cuff and all cables from the monitor.
- 3. Turn off all printing (if a printer is attached).
- 4. Disconnect the power adapter.
- 5. Turn on the monitor.
- 6. Run the monitor for 4 hours.
- 7. Check that the monitor did not automatically turn off.
- 8. Press MAIN MENU.
- 9. Use the ac power adapter and charge the monitor for at least 8 hours with the
- monitor turned off. (Charge at least 12 hours if a printer or pulse oximeter is attached.)

Self Test and Service Menus

- The Encore monitor includes built-in self-tests that verify the integrity of its hardware and software each time you turn it on.

- If the monitor turns on and displays the Main Menu, all self-tests were passed.

- If a self-test results in a failure, a message and error code are displayed indicating the failure mode.