Abstract: Medical diagnostic instruments and systems are provided that include (i) a proximal handle configured and dimensioned to permit an operator to manually grasp the instrument; (ii) an ultrasound probe including a longitudinal shaft extending distally from the handle and terminating in a distal end, and an ultrasound transducer mounted with respect to the longitudinal shaft proximate the distal end thereof, the ultrasound transducer including an array of ultrasonic energy generation elements; and (iii) a tactile feeler probe mounted with respect to the ultrasound probe, the tactile feeler probe including a longitudinal shaft mounted with respect to the longitudinal shaft of the ultrasound probe and extending distally beyond the distal end thereof, and a feeler probe tip (e.g., a ball tip) defined at a distal end of the longitudinal shaft of the tactile feeler probe. Advantageous methods for use of the disclosed instruments and systems are also provided, e.g., for detecting breaches in cortical bones in connection with pedicle screw placement.
(15) Information about Correction:
see Notice of 6 October 2011