An underappreciated problem with auscultation

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When it comes to the depiction of the medical world on the motion picture screen or on television, you can count me out. The errors and inconsistencies that pop up there are more than this observer can tolerate. A story set in the 1930s or 1940s meticulously observes the clothing, furniture, and even automobile models of the period. Then, when a senior physician appears, he is not wearing a long white laboratory coat appropriate to his position but, rather, a short white jacket, more properly worn by medical students and junior houseofficers. We are shown a scene in an examining room or operating suite, and there on the x-ray view box is the chest film of the patient—inserted backwards. (And no, Virginia, the story is not about an outbreak of *situs inversus*.)

On the popular series *ER*, we witnessed junior residents in the emergency room performing all kinds of sophisticated diagnostic and therapeutic procedures short of open heart surgery. Then there was Dr. House, showing up week after week badly in need of a shave, a haircut, and, possibly, delousing judging from his appearance. The only thing more distasteful than that was his personality. When he strode with impunity into an isolation unit, alarms should have gone off rather than the welling up of stirring background music. How this character became an icon simply baffles me.

Complaining about such misrepresentations as these might be called nitpicking. They are clearly in the realm of fiction. There is another example of malpractice in the world of make believe that, unlike the other transgressions, extends into the real world. What I refer to is the practice of attempting to auscult the chest through one or more layers of clothing. Aside from seeing this on TV and in films, I had noticed it occurring every once in a while in real life, most often in the setting of a busy outpatient clinic with doctors pressed to rush patients through that particular gantlet.

The presence of any layers of clothing lying between the stethoscope head and the patient's skin is bound to muffle any findings—normal or otherwise—that might be present. Faint heart murmurs and gallops as well as fine rales in the lungs might well be lost to detection. Appreciation of the splitting of the heart sounds, present in most patients, even those without heart disease, might be reduced as well. Such failures in auditory perception might lead to serious failures in diagnosing heart or

lung pathology and following up with appropriate diagnostic technologies. Conversely, a patient with dramatic symptoms unsupported by history or physical findings may prompt a physician, uncertain of his bedside skills, to order a number of expensive tests that might only increase the patient's fears as well as his medical bill.

Such considerations got me to wondering how widespread this deviation from good clinical practice had become. To get some idea of this, I began tabulating all representations of chest auscultation in the public media, almost exclusively television, and noting whether proper technique was being demonstrated (SKINS) or the improper technique of listening to the chest through one or more layers of apparel (CLOTHES). All these examples were placed in the category of either professional representations (doctors and nurses on newscasts and in documentaries) or commercials (actors in dramas, pharmaceutical advertisements, or health care facility promotions). I also made note of the sex of the subject being examined. (Would the reluctance about representing free frontal nudity of women on television work against their being included among the SKINS?) Instances in which the clothing remained in place but with the stethoscope inserted under it to make contact with the skin were registered as SKINS. It took about 2 years to collect the 100 cases I wished to accumulate for analysis.

It turned out that of the 100 individuals portrayed, 71 appeared in the professional category and 29 in the commercial category. Among the latter, only 16% were SKINS, not terribly surprising considering the source. I turned my attention to the professional group. Here 37% were SKINS. Surprisingly, gender did not have a hand in this distribution: among men the proportion of SKINS was 36% and among women the finding was 42%. In both groups, however, the number of correctly performed examinations was depressingly low.

Recent studies evaluating skills in performing physical examinations by medical students, housestaff, and even medical school faculty have uniformly shown a 20% to 80% error rate in recognizing actual or simulated findings (1–5). Such deficiencies

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can only be exacerbated by improper auscultatory technique such as that described here. For those of us too easily prone to become overwrought or even incensed at certain troubling realities, our friends and colleagues may properly caution, “Keep your shirt on.” But when our patients’ bodies are trying to tell us through an examination of the heart and lungs, for example, what may or may not be troubling them and when such findings are so clearly obfuscated by faulty technique, perhaps we should be swayed by a different kind of advice. Recall the sultry Swedish blonde in that classic Noxzema shaving cream commercial who urged us to “Take it off. Take it all off.”

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