



Tape Fixture Or Phone Holder To Stably Hold Probe For Continuous Transthoracic Echocardiography

Peer review status:

No

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Article ID: WMC005676

Article Type: My opinion

Submitted on: 26-Dec-2020, 11:13:30 PM GMT **Published on:** 27-Dec-2020, 08:16:12 AM GMT

Article URL: http://www.webmedcentral.com/article_view/5676

Subject Categories: CARDIOLOGY

Keywords: ProbeFix, Tape Fixture, Phone Holder, Probe, Continuous Transthoracic Echocardiography

How to cite the article: Srirajakalidindi A, Gupta M, Gupta D. Tape Fixture Or Phone Holder To Stably Hold Probe For Continuous Transthoracic Echocardiography. WebmedCentral CARDIOLOGY 2020;11(12):WMC005676

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Source(s) of Funding:

NOT APPLICABLE

Competing Interests:

NOT APPLICABLE

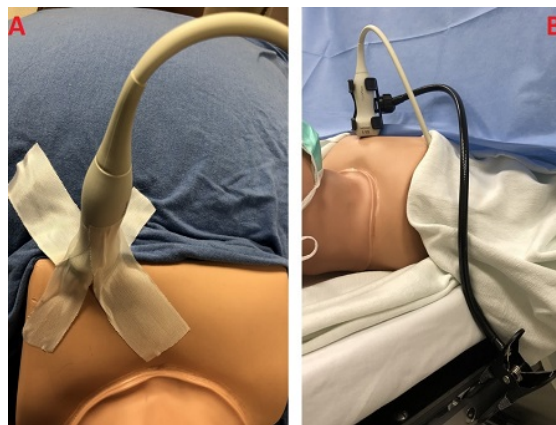
Tape Fixture Or Phone Holder To Stably Hold Probe For Continuous Transthoracic Echocardiography

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My opinion

Analogous to old-school air-tight chest tube dressing, transthoracic echocardiography probe (wireless or portable or standard) can be fixed to the chest with silk or cloth tape as demonstrated on the mannequin (Figure A). This no-cost method had been originally envisaged by our team to potentially investigate and potentially document anatomical changes in healthy volunteers' hearts while (a) their postures change from standing to sitting to supine to lateral to prone thus validating/refuting/reproducing experts' historical results [1-5], and/or while (b) they are riding roller coasters thus validating/refuting/reproducing experts' historical results [6-9]. Although artificial hearts may not demonstrate changes in anatomical shapes and anatomical positions which may be potentially associated with thrills and anxieties induced by roller coaster rides' g-forces, persons with artificial hearts may still avoid roller coaster rides altogether due to their underlying cardiac diseases. In contrast to probe silk/cloth-taped in one fixed position, ProbeFix (Usono B.V., part of Medacc Holding B.V., Eindhoven, The Netherlands) may allow easy reorientation of stabilized probe among long axis and short axis views [10-11]. However due to multi-thousand cost of ProbeFix, the cost-efficient alternative may be easily purchasable " over the counter or online " phone holder to stabilize echocardiography probe on to the immobile and supine patients' chests for intraoperative continuous transthoracic echocardiography as demonstrated with one-version of phone holder on the mannequin (Figure B). The feasibility to reorient among long axis and short axis views may depend on the flexibility and stability of phone holder's chosen and available version because too many versions are available over the counter and online to choose from. Essentially, stabilized holding of transthoracic echocardiography probe is mechanically possible for various clinical applications of continuous non-invasive echocardiography, intraoperatively or otherwise.

FIGURE A-B



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