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## Video Phone Communication With Patients In Isolation

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# Video Phone Communication With Patients In Isolation

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## Abstract

The most stringent isolation precautions (airborne precautions) warrant the most commonly used N95 respirators to be worn by healthcare providers in negative pressure rooms caring for patients suspected or confirmed to be harboring airborne pathogens. However, although N95 respirators aim to protect healthcare providers by filtering out at least 95% airborne pathogens, their use can be discomfoting leading to impaired functioning of healthcare providers. Therefore, it may be worthwhile to explore videophone communication with patients in isolation so that total duration of discomfoting N95 respirators' use can be limited while unmasked faces may ensure improved in-hospital experience due to more fulfilling communication on videophones and reduced in-room traffic enhancing patient safety among "isolated" patients.

## Opinion

The most stringent isolation precautions (airborne precautions) warrant the most commonly used N95 respirators to be worn by healthcare providers in negative pressure rooms caring for patients suspected or confirmed to be harboring airborne pathogens.<sup>1-2</sup> However, although N95 respirators aim to protect healthcare providers by filtering out at least 95% airborne pathogens, their use can be discomfoting leading to impaired functioning of healthcare providers.<sup>3-5</sup> Therefore, avenues like videophone services should be explored wherein healthcare providers can communicate with patients without entering negative pressure rooms wearing N95 respirators.<sup>6</sup> After ensuring its Health Insurance Portability and Accountability Act (HIPAA)-compliance,<sup>7-8</sup> the exploration of videophone (videotelephony) may ensure that patients can utilize videophones for face-to-face communications with unmasked healthcare providers. While patients can be continuously monitored remotely with audio-video telemonitoring,<sup>9</sup> entry into negative pressure rooms and duration of N95 respirators' use can be limited to only those instances when physical presence of healthcare providers inside "isolation" room is

essential. If patients' and healthcare providers' acceptance levels of videophone use turn out to be high, then this avenue can be explored for less stringent isolation precautions too (droplet precautions and contact precautions). Similar example is audio-video telemonitoring of patients receiving in-hospital radiation therapy with possibility to incorporate videophone communication during radiation therapy in "isolation".<sup>10</sup>

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There may be few barriers to videophones' in-hospital exploration and implementation. Ideally, there should be cubicles attached to "isolation" rooms so that healthcare providers can freely communicate with patients on videophones without breaching confidentiality. Alternatively, attached cubicles connected to "isolation" rooms may have common transparent window-wall with two-way voice communication channels across as similar to electromagnetic compatible (EMC) shielded windows used in radiology suites.<sup>11</sup> However, constructing cubicles may increase infrastructural costs. Innovative video headphones can provide additional privacy during communication;<sup>12</sup> however, video headphones may cover eyes of patients and healthcare providers interfering with eye contact which is essential for effective communication and one of the reasons for preferring videophones over voice phones. It will be noteworthy if cleansing and sterilization practices for used video headphones and videophones will be effective because currently they seem too costly to be single-use or single-person-use. Anyhow, videophones may need earphones with microphones to ensure confidentiality unless used inside private cubicles or offices. When envisaging group videoconferencing to include patients' families, safe information technology measures would have to prevent more than one patient's videophone getting connected into confidential group videoconference. Additionally, to avoid videophones getting voice-video tapped inadvertently or intentionally,<sup>13</sup> hospital videophone systems can have futuristically air-gapped transmission cables connecting in-hospital videophones as wired-only locally connected restricted-access devices remaining disconnected with outside world.<sup>14</sup> Â

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Summarily, it may be worthwhile to explore videophone communication with patients in isolation so that total duration of discomforting N95 respirators' use can be limited while unmasked faces may ensure improved in-hospital experience due to more fulfilling communication on videophones and reduced in-room traffic enhancing patient safety among "isolated" patients.

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