Title: Use of Personal Mobile Devices to Record Patient Data by Canadian Emergency Physicians and Residents

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Physician | % | Resident/Fellow | % |
| **Respondents** |  | N = 406 |
|  |  | 345 | 85.0 | 61 | 15.0 |
| **Age** | < 24 | 0 | 0.0 | 1 | 1.6 |
|  | 24-34 | 71 | 20.6 | 58 | 95.1 |
|  | 35-44 | 103 | 29.9 | 2 | 3.3 |
|  | 45-54 | 101 | 29.3 | 0 | 0.0 |
|  | 55-64 | 61 | 17.7 | 0 | 0.0 |
|  | > 65 | 7 | 2.0 | 0 | 0.0 |
|  | Undisclosed | 2 | 0.6 | 0 | 0.0 |
| **Training Program** | FRCPC-EM | 100 | 29.0 | 39 | 63.9 |
|  | CCFP-EM | 177 | 51.3 | 9 | 14.8 |
|  | CCFP | 48 | 13.9 | 11 | 18.0 |
|  | FRCPC Pediatric EM | 12 | 3.5 | 1 | 1.6 |
|  | FRCPC Pediatric | 3 | 0.9 | 0 | 0.0 |
|  | Other\* | 5 | 1.4 | 1 | 1.6 |
| **Years of Practice** | < 1 | 33 | 9.6 | - | - |
|  | 1-5 | 63 | 18.3 | - | - |
|  | 6-10 | 44 | 12.8 | - | - |
|  | >10 | 205 | 59.4 | - | - |
| **Primary Workplace / Site of Training** | Large Urban Academic Hospital | 195 | 56.5 | 48 | 78.7 |
|  | Large Urban Non-Academic Hospital | 28 | 8.1 | 6 | 9.8 |
|  | Small Urban Hospital | 70 | 20.3 | 5 | 8.2 |
|  | Rural Hospital | 44 | 12.8 | 0 | 0.0 |
|  | Remote Clinic / Heath Centre | 6 | 1.7 | 2 | 3.3 |
|  | Undisclosed | 2 | 0.6 | 0 | 0.0 |

**TABLE 2: DEMOGRAPHICS**

**\*:** American Board of Emergency Physicians. American Board of Pediatrics. Unspecified.

**TABLE 3: THE IMPACT OF PERSONAL MOBILE DEVICES AND THE AWARENESS OF REGULATIONS**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | %\* |
| **Opinion of the respondents on how the use of personal mobile devices to record patient data currently affect care in the emergency department.** | It improves patient flow in the emergency department. | 83 | 29.4 |
| It improves the knowledge of future doctors through medical education. | 133 | 47.2 |
| It improves the care from consultants and their clinical decisions. | 149 | 52.8 |
| It expedites patients' care. | 127 | 45.0 |
| It does not affect care. | 38 | 13.5 |
| It negatively affects care. | 21 | 7.4 |
| Other(s)\*\* | 43 | 15.2 |
| **Are respondents aware of any regulations on the use of personal mobile devices in the emergency department at their institution(s)?** | Yes | 144 | 40.0 |
| No | 216 | 60.0 |
| **Do respondents feel restricted by current regulations in their use of personal mobile devices in the emergency department?** | Yes | 80 | 22.2 |
| No | 141 | 39.1 |
| I do not know the current regulations. | 140 | 38.8 |

\* The number of responses for each question varies, resulting in different denominators.

\*\* They improve patient follow-up. They improve information gathering and access. They threaten privacy and confidentiality.

Survey

The Utilization of Personal Mobile Devices by Emergency Physicians and Residents for Patient Care:

**Demographics**

**Please select your current level of training:**

• Resident or Fellow

• Physician

**Please select the option that best describes your current or future certification:**

Physician:

• FRCPC in Emergency Medicine

• CCFP-EM

• CCFP

• FRCPC in Paediatrics with EM Fellowship

• FRCPC in Paediatrics

• Other, please specify:

Resident or Fellow:

• FRCPC in Emergency Medicine

• CCFP-EM

• CCFP

• Paediatric EM Fellowship

• FRCPC in Paediatrics

• Other, please specify:

**How many years have you been in practice since finishing your residency/training?**

• < 1

• 1-5

• 6-10

• > 10

**How old are you?**

• < 24

• 25-34

• 35-44

• 45-54

• 55-64

• > 65

**How would you describe your primary workplace or site of training?**

• Large urban academic hospital (Tertiary)

• Large urban non-academic hospital (Tertiary)

• Small urban hospital (Secondary)

• Rural hospital (Primary)

• Remote clinic / health centre

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**Use of Mobile Device (e.g. Smartphones, Androids, IPhones, etc.)**

**Do you use a personal mobile device in the emergency department to record patients' data?**

• Yes

• No

**I use a personal mobile device in the emergency department to record patients’ data (Audio recording, pictures of ECG, CXR, Wounds and Lab Results):**

• Never

• Annually

• Monthly

• Weekly

• Once every shift

• Multiple times per shift

**Why do you record patients’ data on your personal mobile device in the emergency department? (Select all that apply)**

• To include in the patient's medical record

• For medical education

• For communication with consultants

• For your personal library

• To use it at the bedside for patient information or education

• Other, please specify...

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**Consent** Note: Patient data is any medical information including ECGs, imaging, laboratory values, identification, and pictures or videos of the patient

**I obtain patient's written consent to record any form of patient data on my personal mobile device**

• Never

• Rarely

• Sometimes

• Often

• Always

**I obtain patient's verbal consent to record any form of patient data on my personal mobile device**

• Never

• Rarely

• Sometimes

• Often

• Always

**I document patient's verbal consent to record any form of patient data on my personal mobile device**

• Never

• Rarely

• Sometimes

• Often

• Always

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**Data Acquisition**

**Which patient data do you document with your personal mobile device in the emergency department? (Select all that apply)**

• Patient demographics (e.g. Medical Record Number, Insurance Number, Phone Numbers, etc.)

• ECGs

• Imaging (e.g. X-rays, U/S, CT, MRI)

• Laboratory results

• Pictures of wounds and/or repaired lacerations

• Physical examination findings (e.g. nystagmus)

• Monitors/Vitals

• Interaction/Clinical encounter (audio recording)

• Interaction/Clinical encounter (video recording)

• Resuscitation (audio recording)

• Resuscitation (video recording)

• Other, please specify...

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**Storage**

**Please indicate which is correct regarding securing your personal device:**

• My personal mobile device is password protected.

• My personal mobile device is not password protected.

• I do not know.

**How do you store patients’ data on your personal mobile device?**

• I use the native application (app.) of my personal mobile device.

• I use a third party secured application (app.) (e.g. 1Password, Modica, etc.).

• I do not know.

**Please select all that apply. The patients' data stored on my personal mobile device:**

• Remains solely on my personal mobile device.

• Is transferred to one or more devices using emails or text messaging.

• Is backed-up in a cloud/online storage.

• Is automatically synchronized to my other devices through the cloud/online storage.

• Is synchronized to one or more devices using a cord.

• I do not know.

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**Effects on Clinical Care** The following questions all refer to personal mobile device use for the recording of patient data.

**Please indicate your opinion on how the use of personal mobile devices, for the recording of patient data, currently affect care in the emergency department. (Please select all that apply. Use the text to explain as required.)**

**Personal mobile devices:**

• Improve patient flow in the emergency department.

• Improve the knowledge of future doctors through medical education.

• Improve the care from consultants and their clinical decisions.

• Expedite patients' care.

• Do not affect care.

• Negatively affect care.

• Other(s)

**Are you aware of any regulations on the use of personal mobile devices in the emergency department at your institution(s)?**

• Yes

• No

**Do you feel restricted by current regulations in your use of personal mobile devices in the emergency department?**

• Yes

• No

• I do not know the current regulations.

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**What changes, if any, to the current personal mobile device regulations do you feel would be beneficial to your clinical practice?**

**What changes, if any, to the current personal mobile device regulations do you feel would improve patients’ care?**