CHALLENGES WITH MEDICAL DIRECTIVES FOR PHYSICIAN ASSISTANTS IN ONTARIO

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Abstract

Introduction: Physician Assistants (PAs) in Ontario are unregulated health professionals with no legislation directly authorizing them to perform controlled acts. The legal authority to perform their healthcare role is through medical directives (MedD). This delegated authority was established by the College of Physicians and Surgeons of Ontario (CPSO) in 1999, before PA institution into Ontario in 2006.

Method: The authors and volunteers from the Ontario Chapter of the Canadian Association of Physician Assistants undertook a review and examination of the Ontario PAs' MedD. Those discussions and correspondence identified perspectives and proposed solutions.

Results: Identified issues include the requirement of a comprehensive list of indications and contraindications for each act, multiple stakeholders' approval for each MedD is required, and ambiguity in criteria found in the CPSO MedD policy that results in an inherent delay in reflecting current clinical practice guidelines in daily practice

Discussion: Current Policy and Standards have created an exceptionally time-consuming and ineffective method to structure PA practice. The CPSO policy on MedD reflects situations where the clinical context is static. In actuality, PAs work in a variety of clinical settings and often with evolving clinical context. Ultimately, it seems that PAs in Ontario function in a role with less autonomy and smaller scope of practice when compared to PAs in Manitoba, New Brunswick, or the Canadian Armed Forces. Therefore, differences in legislation and the massive administrative burden to create thorough MedD would lead to a diminished scope of practice and less autonomy.

Conclusions: The authors recommend and provide suggestions for updating legislation to address controlled acts performed by PAs in Ontario. Updating CPSO policy to reflect the level of training and role(s) of PAs is required. As an interim improvement, working towards standardized MedD to alleviate administrative burdens and promote uniformity where reasonable is required. With these proposed changes, the aim is to reduce barriers to ensure that PAs may function in their intended healthcare role and thereby increase the medical services provided to Ontarians.

Definitions[1]

Controlled acts: "Controlled acts are specified in the Regulated Health Professions Act, 1991 as acts which may only be performed by authorized regulated health professionals." These acts require a licence to perform or delegation from an individual with a licence. The intent is to limit execution of these medical acts to trained and certified individuals only.

Medical directives: "Medical directives are written orders by physicians (often more than one) to other healthcare providers that pertain to any patient who meets the criteria set out in the medical directive. When the directive calls for acts that will require delegation, it provides the authority to carry out the treatments, procedures, or other interventions that are specified in the directive provided that certain conditions and circumstances exist." They are signed documents that are held at the clinic or hospital for reference as needed.

Supervising Physician (SP): The licensed physician who enters into a contract of supervision and authorizes the practice of the physician assistant through medical directives or verbal orders.

Introduction

In Ontario, Physician Assistants (PAs) function under medical directives (MedD). These allow the supervising physician (SP) to delegate controlled acts to the PA to provide patient care. The process of delegation and creation of MedD is in The College of Physicians and Surgeons of Ontario (CPSO) Policy on *Delegation of Controlled Acts*.[(1)] This policy has been applied to authorize PAs to perform some of the controlled acts.

Volunteers from the Canadian Association of Physician Assistants (CAPA) collected data on existing PA MedD used in Ontario. Both challenges and future opportunities regarding the use of MedD were identified (roundtable discussion, unpublished material). Many of these challenges identified centre around the following components of the CPSO Policy:

> *A medical directive must include sufficient detail to ensure that it can be implemented. The following information must be included in a medical directive:*
>
> 1. *The name and a description of the procedure, treatment or intervention being ordered;*
> 2. *An itemized and detailed list of the specific clinical conditions that the patient must meet before the directive can be implemented;*
> 3. *An itemized and detailed list of any situational circumstances that must exist before the directive can be implemented;*
> 4. *A comprehensive list of contraindications to the implementation of the directive;*

The primary problem is that the breadth and depth of the PA role are difficult to capture in MedD and meet the criteria stated above. PAs are trained to approach a clinical problem by formulating a differential diagnosis based on history and physical exam, then narrow the differential diagnosis through investigations before formulating a treatment plan. As unregulated health professionals, PAs require MedD or a direct order from a physician to initiate any controlled act. With all investigations, most treatments, and even some elements of the physical exam defined as controlled acts, the elements in MedD that are required to formulate a differential diagnosis and treatment plan properly are numerous. Each controlled act or order needs listing in the MedD with a corresponding set of clinical conditions, situational circumstances, and contraindications. The resulting document may be hundreds of pages in length, and a substantial drain on scarce health care administration resources.

The current CPSO policy works exceptionally well for extending some controlled acts to registered nurses in the emergency department (ED) triage. Health Force Ontario has also published PA literature that uses these MedD as examples for others to utilize.[(2)] However, in this example the clinical context is established and structured - a patient is arriving at the ED with a set of signs and symptoms. Conversely, PAs perform assessments in a variety of clinical contexts. For instance, a PA working in an ED may

encounter or re-assess a patient after initial investigations or empiric treatments that may guide the next steps in investigations and management. The clinical context varies in this scenario and is often continually changing. Writing MedD to reflect this development is extremely challenging since indications and contraindications change as the clinical context evolves. Considering the many employment settings for PAs, including in-patient, outpatient clinics, surgical or medical wards, outpatient, pediatrics or adult, screening versus symptomatic or resuscitative versus palliative (moreover, for some PAs perhaps all in the same day), each setting or scenario would require a MedD.

The phrases "sufficient detail," "detailed list of the specific clinical conditions," and "detailed list of any situational circumstances" are not well defined in the CPSO policy. The Ontario Hospital Association published the *Emergency Department Medical Directives Implementation Kit* that describes specific guidelines for MedD implementation and provides a prototype ED triage MedD.[3] The Health Force Ontario Physician Assistant Initiative's webpage contains a link to this implementation kit and is referenced in the CPSO policy. These guidelines are perhaps the most relevant supplemental information available regarding clarification of "sufficient detail." In this kit, they simplify the policy wording by using column headings: indications, contraindications, and guidelines.

Orders	**Indications/Contraindications**	**Guidelines**
b) Capillary Blood Glucose	To determine baseline glucose status in patients with a diagnosis of diabetes mellitus and for signs and symptoms suggestive of hypoglycemia or hyperglycemia, including one or more of the following: • Altered LOC • Confusion, agitation, behavioural changes • Recent or active seizure • Suspicion of alcohol ingestion • Syncopal event • Lifeless, lethargic, fatigued	Follow applicable hospital policy and procedure

Table 1: Example of an order from the Emergency Department Medical Directives Implementation Kit

These three headings are standard for every order, including laboratory investigations, procedures, and medications. The indications and contraindications are mostly specific signs and symptoms but also contain some vague indications such as "metabolic imbalance" as an indication for ECG.

For clarification, the prototype set of MedD in the kit includes definitions of terms such as "acute coronary syndrome," "immunocompromised," and "dehydration" (including a table to be used to identify the degree of dehydration). There is also a comprehensive list of references citing evidence, clinical practice guidelines, or textbooks to substantiate an investigation or treatment for each suspected diagnosis; for example, "Electrocardiogram in Acute Myocardial Infarction. New England Journal Med. 2003; 348:933-940."

The MedD is 42 pages in length and comprehensive regarding the initiating investigations and providing temporizing therapies at triage. However, these MedD only represent a fraction of the orders

required to investigate and treat a patient accurately. Following this format and increasing the number of orders for PA scope of practice would require many more definitions and references. The MedD document would start to mirror curricula from a PA education program or medical text. As well, the prototype MedD do not include results of investigations because the context is strictly for use at triage. Adding laboratory parameters complicates and expands the directives significantly. Creating comprehensive PA MedD that would enable a PA to gather all the necessary information to present a diagnosis and treatment plan to their SP would require hundreds of additional pages of text, and hundreds of hours of work. Each department or clinic utilizing a PA cannot devote these resources to create such a MedD.

Methods

MedD were obtained from CAPA members from across Ontario and examined for similarities, differences and adherence to the CPSO policy on *Delegation of Controlled Acts*. Practice location was blinded for analysis and organized by clinical setting, e.g., family medicine or orthopedic surgery. The MedD were not modified in any way. "Pros" and "cons" of each style of MedD were outlined.

Results

Sixteen medical directives were obtained from the following practice areas: family medicine (n= 5), emergency medicine (n= 3), internal medicine (n= 1), general surgery (n=4), neurosurgery (n=1), orthopaedic surgery (n=1) and endocrinology (n=1). As a consequence of the issues outlined above, PA MedD currently in use in Ontario demonstrate large degrees of variance. Hospital or clinic administrators, physicians, and PAs who write and approve MedD interpret the CPSO policy differently. Following a review of current PA MedD in Ontario, we identified several different approaches taken to create the document.

A) No medical directives

Every order generated by the PA requires co-signature by SP

Pros:

- Excellent way to assess skills and knowledge, particularly of a newly employed PA
- SP has direct supervision of PA
- No administrative work is required

Cons:

- It may be an inefficient means of providing care. PA often must wait for the SP to be available for co-signature
- Patient flow is slow
- Severely limits the productivity and return on investment of employing a PA
- Reduces productivity of SP due to repeated interruptions
- Under-represents knowledge, skill, and intended role of PA

B) Order centered directives

Order	Indications	Contraindications
Blood-based Laboratory Investigations		
CBC	Suspected or known sepsis, anemia, bleeding; monitoring of medication side effects.	Inability to safely access venipuncture or alternate methods of blood sampling.
Reticulocyte count	Characterization of anemia	

Table 2: Example of a PA medical directive organized by order.

Pros:

- Clearly defines formulary of investigations and interventions performed by the PA. SP has specified what orders are delegated to the PA
- Commonly used style of formatting, as seen in the OHA ED prototype MedD and the Federation of Health Regulatory Colleges of Ontario MD template[(4)]
- Allows some practice autonomy for the PA to be more selective in choosing only the required investigations

Cons:

- Time intensive to create
- Indications may be vague or omitted
- Unclear what satisfies "sufficiently detailed."

C) Problem or complaint centred directives

Presenting Complaints	Order	Indications/Contraindications and Guidelines
Acute urinary retention	PAs may implement an order for any of the following tests if indicated after physical assessment (see: Ortho-001-1.0): • Urine R&M • Urine C&S • Insert or order urethral catheterization PAs will review patient Past Medical History, Social History, list of past and current medications in connection with clinical findings.	**Indications:** Adult (pre or postoperatively) orthopedic patient who is unable to void **Contraindications**: Patient refusal **Guidelines:** PA should contact MD to report findings and to discuss further diagnostic or management plan

Table 3: Example of a PA medical directive organized by a problem or presenting complaint.

Pros:

- Easy to read and follow

Cons:

- Most time consuming of all the models to create, as many potential scenarios would need to be outlined
- Common tests and medications would be listed multiple times along with their associated contraindications being repeated
- Cannot account for variations in clinical context or patient-specific differences. Multiple complaints can occur concurrently and have potential to conflict
- May mirror algorithmic-type medicine and limit the PA's differential diagnoses and patient-specific interventions

D) List of authorized investigations and treatments

A simple list of investigations and treatments the PA is authorized to initiate.

Diagnostic Tests Authorized to the Physician Assistant in Oncology	
Laboratory	
Type and Crossmatch	Liver Function Tests
Serum Magnesium	Renal Function Tests
PT/INR/PTT	Serum Iron
BUN	TIBC
LDH	D-Dimer
PSA	B12
CEA, CA 15-3, CA-19, CA125	Folate

Table 4: Example of a PA medical directive that lists the controlled acts delegated to the PA.

Pros:

- Clearly defines the which controlled acts are delegated to the PA
- Easy to create and amend

Cons:

- Does not meet medical directive criteria outlined in the CPSO policy

E) Referencing external resources

Many directives reference external resources such as RxFiles or the Compendium of Pharmaceuticals and Specialties (CPS) to avoid listing all the indications/contraindications in the text of the directive

Pros:

- Substantial time and efforts saved
- Ensures exhaustive list of contraindications

Cons:

- Unclear if this is acceptable by the CPSO or sufficient from a legal perspective

Discussion

Ontario introduced PAs into the public system in 2006, and the numbers working has risen substantially since 2010.[5] The original 1999 version of the CPSO Policy on Delegation of Controlled Acts, updated in 2003, 2004, 2007, 2010, and 2012, was created for all healthcare roles and subsequently applied to PA practice in Ontario. No policy or legislation explicitly addresses the controlled acts performed by PAs in the province. PAs are unique in the reliance on the working relationship with their Supervising Physicians, and the degree of autonomy determined on an individual basis.[6] One positive aspect of MedD is they formally document this negotiated autonomy and the scope and limitations of the individual PA's practice.

Clinical practice is continuously changing; indications and contraindications for investigations and treatments are evolving as new evidence becomes available. Amending MedD, specifically long detailed documents, is not only time consuming but problematic as these documents require review and approval from multiple committees and departments. Updating MedD is a slow process and thereby limits the PA's ability to adhere to the most recent clinical practice guidelines. For example, in January 2017 the Canadian Cardiovascular Society published guidelines that suggested measuring daily postoperative troponin in specific patient populations.[7] MedD written before January 2017 would not list this indication for measuring troponin. Therefore, before a PA can follow this guideline, the MedD must be updated. Updating the directives would require amendments and approval signatures from SPs and authorizing administrators. There would be a significant delay (weeks to months) before the MedD reflected clinical best practices.

As a result of the complexities in creating MedD and the ambiguity regarding what is acceptable from a legal perspective, many PAs in Ontario do not have MedD that reflect their abilities and intended role in the healthcare system. By functioning below their full scope of practice, the effects on health outcomes and ability to improve the efficiency of the health care spending are likely falling short of their potential.

Recommendations for future direction in Ontario

There are two proposed models to improve the methodology of the controlled acts performed by PAs in Ontario:

A) Introducing legislation authorizing PAs to perform controlled acts

This legislation would ideally enable PAs to perform, order, or prescribe under their authority, similar to physicians or nurse practitioners. There may be some exceptions and limitations, such as outpatient prescribing of controlled substances. The PA would continue as a dependent practitioner under the authorization of the Supervising Physician. In this model, the PA would function similar to a resident physician.

Pros:

- This model (or very similar models) has proven its effectiveness in Manitoba, New Brunswick, the Canadian Armed Forces, United States of America and Netherlands[8]
- Allows the PA to function closer to their full scope of practice and thereby maximizes positive effects on health outcomes for Ontarians
- Allows PAs to function in emerging roles, such as contributing to an on-call schedule in support of their physician colleagues
- Avoids frequent updating of MedD to reflect new clinical evidence

Cons:

- Would likely require PAs to become a regulated health profession in the province (discussion of regulation and its impact on the profession is beyond the scope of this document)
- The potential for PAs placement in clinical circumstances exceeding their skill and knowledge level
- Less formal establishment of autonomy

B) Amending the CPSO policy to include special considerations for PA medical directives

The goal would be to simplify the criteria authorizing PAs to perform the delegated controlled acts and further consider the level of training of PAs. For example, eliminate the necessity to outline the indications, contraindications and clinical circumstances within the CPSO policy.

Pros:

- Less time and work to create and maintain
- Allows for documentation of the level of autonomy delegated to the PA
- Enables the PA to formulate their differential diagnosis and treatment plan, using their comprehensive education to the patient's benefit
- Potentially still allows for role expansion as described above
- Maintains the same spirit and rationale for necessitating MedD in the first place

Cons:

- May still potentially limit PA scope of practice

Interim solution

It seems the daunting amount of administrative work required is limiting the development of robust MedD that allows the PA to perform closer to their intended scope of practice. Unfortunately, the degree of autonomy is being limited, and not as a result of the PA as a clinician. Therefore, CAPA volunteers have begun creating standardized MedD that Ontario PAs may present to their SPs and institutions for review and authorization. Standardized MedD would alleviate a great deal of administrative work for individual hospitals and clinics. The proposed standardized MedD would be robust and thorough enough to allow the PAs to care for their patients efficiently and meet CPSO criteria. The directive would allow for edits, additions and omissions of orders for further individualization. Table 2 is a standard order-centred layout and recommended template.

Standardized MedD is an interim solution pending changes made at the provincial level to address the authorization of controlled acts by PAs. Additional goals of this project include improving efficiency and patient outcomes by expanding the PA role at no additional cost to the system. Improved interprofessional collaboration and understanding is also an expected outcome of this project. With standardized MedD, other healthcare professionals including nurses and pharmacists have significantly more exposure to a standardized document.

Conclusion

Physician Assistants are skilled healthcare professions educated and qualified with the medical skills identified as controlled acts. As unregulated members of the Ontario health care team, PAs lack formal legislative authority to perform controlled acts without individual authorization from physicians

and the complicated and time-intensive process of delegating the authority through Medical Directives. Addressing controlled acts performed by PAs will increase the medical services provided to Ontarians without the burden of additional costs.

References

1. The College of Physicians and Surgeons of Ontario. Delegation of Controlled Acts [Internet]. Toronto: 2012 [cited 2018 Mar 31]. Available from http://www.cpso.on.ca/CPSO/media/uploadedfiles/policies/policies/policyitems/delegation.pdf?ext=.pdf.
2. The Ontario Physician Assistant Initiative. Roles and Responsibilities of Supervising Physicians [Internet]. Toronto: 2009 [cited 2018 Mar 31]. Available from https://www.oha.com/Professional%20Issues1/Ontario%20Physician%20Assistant%20Initiative%202009.pdf.
3. Ovens H, Stevenson K, Cheung W, Dushenki D, Eisen J, Farquharson C, et al. Emergency Department Medical Directives Implementation Kit [Internet; cited 2018 Mar 31]. Available from https://www.oha.com/Professional%20Issues1/ED%20Medical%20Directives%20Implementation%20Kit.pdf.
4. Federation of Health Regulatory Colleges of Ontario. FHRCO Guide to Medical Directives and Delegation [Internet]. Beaverton: 2017 [cited 2018 Mar 31]. Available from: http://mdguide.regulatedhealthprofessions.on.ca/templates.html.
5. Canadian Association of Physician Assistants. CAPA Member-Census Results. Ottawa: 2016 [cited 2018 Mar 31]. Forthcoming.
6. Canadian Association of Physician Assistants. About PAs [Internet]. Ottawa [cited 2018 Mar 31]. Available from: https://capa-acam.ca/about-pas.
7. Duceppe E, Parlow J, MacDonald P, Lyons K, McMullen M, Srinathan S, et al. Canadian Cardiovascular Society Guidelines on Perioperative Cardiac Risk Assessment and Management for Patients Who Undergo Noncardiac Surgery. Canadian Journal of Cardiology. 2017 Jan (33)1: 17-32.
8. Canadian Association of Physician Assistants. Legislation [Internet]. Ottawa [cited 2018 Mar 31]. Available from: https://capa-acam.ca/pa-employers/legislation.