Using the Upshur principles to discuss medical fitness to drive

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In June 2015 *Canadian Family Physician* published a clinical review article on the 10 most notable family medicine research studies in Canada.[1] Listed among the notables was "Principles for the justification of public health intervention,"[2] colloquially known as the *Upshur principles*, written in 2002 by Ross Upshur, the then soon-to-be Director of the University of Toronto's Joint Centre for Bioethics in Ontario. The article focuses on the ethical deliberations that intersect primary care and public health, community concerns and individual rights, and scientific uncertainty and potential harm.[3] It speaks to both family and public health physicians.

The article[2] was timely. In 2002 we were about to face the global emergence of SARS (severe acute respiratory syndrome). In an effort to contain transmission of this poorly understood infectious disease, health care workers at all levels in many jurisdictions were introducing and enforcing health protection measures such as isolation, quarantine, and social distancing that restricted the liberties of individuals and groups. Under such circumstances, as Upshur observes,

> The straightforward application of the principles of autonomy, beneficence, non-malfeasance and justice in public health is problematic .... The overarching concern for the individual patient found in clinical ethics is not neatly analogous to a concern for the health of the population. As well, there is no clear analogy to the fiduciary role played by physicians .... Individual versus community rights and conflicts within and between communities are the more likely locus of ethical reflection in public health practice.[2]

Upshur constructed and elaborated on a framework relating to the question of when public health action is justified. He proposed the following 4 principles.[2]

Harm principle. The harm principle sets out the initial justification for a government agency to take action to restrict the liberty of an individual or group. Its origins are historical, crafted 2 centuries ago by John Stuart Mill, a British philosopher, political economist, and civil servant who wrote, "The only purpose for which power can be rightly exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not sufficient warrant."[2]

Least restrictive or coercive means principle. This principle recognizes

> that a variety of means exist to achieve public health ends, but that the full force of state authority and power should be reserved for exceptional circumstances and that more coercive methods should only be employed when less coercive methods have failed.[2]

Reciprocity principle. This principle states that once public health action is warranted, there is an obligation on a social entity (eg, public health department) to assist individuals or communities with the discharge of their ethical duties.

Transparency principle. This principle states that all "legitimate stakeholders should be involved in the decision-making process, have equal input into deliberations, and the manner in which decision-making is made should be as clear and as accountable as possible."[2]

Unsafe driving: a public health concern

Not all public health scenarios assume the level of urgency and uncertainty of an emerging infectious disease, but the overall burden and toll can be equivalent or greater. Unsafe driving practices are a good example. According to the Canadian Medical Association's guide for drivers, motor vehicle crashes kill about 2500 people in Canada each year and injure about 180 000. By comparison, the number of deaths attributable to SARS in 2003 was 44[4]; however, this number might have been much higher had civil liberties not been restricted for a period.

Family physicians quite often face difficult decisions and discussions about assessing the effect of a patient's medical condition on driving safety, especially when, like me, they have a Certificate of Added Competence in Care of the Elderly. The suspension of an individual's driving licence against his or her will can be an affront to autonomy and has potentially harmful effects, such as social isolation, in addition to safety benefits. But beyond identifying these tensions, when assessing driving safety I do not find the traditional 4 principles of autonomy,

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beneficence, non-malfeasance, and justice to be as helpful as the simple framework proposed by Upshur to guide the discussion and decision, particularly when aging can be associated with loss of insight, judgment, and independent functioning, as illustrated in the following case.

> The daughter of a 76-year-old man with progressive expressive aphasia calls the clinic with concerns about her dad's ability to drive, requesting that this be assessed. Her father drives a short distance daily to work in a family business and cherishes these ventures out. He would be "devastated" to lose his licence, says the daughter. Two years ago he had a car accident and was subsequently required to perform an on-road test. Her father apparently expended a great deal of effort to prepare for this test. He passed it, but since then the family has noticed slowness in his reaction time and judgment. His family members worry about his safety and the safety of others when he is driving, but they hesitate to address the issue directly.
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> Aphasia is not typically a diagnosis that raises concern about driving; however, because of the daughter's concern, the patient is seen in the clinic. Upon reassessment it is apparent her father's aphasia has progressed and he now has signs of a movement disorder. He can no longer speak. He has developed difficulty with ocular movements, a new resting tremor, and poor coordination, and is also very slow moving. Cognitive testing results demonstrate visuospatial deficits, perseveration, and that he takes more than 5 minutes to complete part B of the Trail Making Test, signaling difficulty with switching attention between tasks. Without prompting, the patient admits he no longer trusts his own judgment. Although there is diagnostic uncertainty as to the cause of the patient's decline in hand function and cognition, his clinical assessment, based on the limited functional assessment conducted in the office, suggests that it is not safe for this gentleman to drive.

Principles applied

In this patient's case, according to the harm principle, stopping him from driving is justified simply because his driving poses potential harm to others. It also poses the risk of harm to himself, but this potential harm, although true, is not necessary to justify suspending his licence. According to the harm principle the risk of harm to others is sufficient to take action. It is also not necessary, according to this principle, that the individual have insight or acceptance about the fact that his driving poses risk of harm—an aspect of the principle that can be helpful when dealing with patients who have dementia and poor insight; nor is it necessary to know the level of certainty about the risk of harm, as public health action to prevent harm can be justified when the risk of harm is uncertain.[3] There is uncertainty about harm in this case because of the limited functional assessment conducted in the clinic and the lack of clarity about the diagnosis and about the extent to which the aphasia interferes with the patient's ability to communicate and respond to testing. This lack of clarity applies in many diagnoses including hypoglycemia, syncope, and mild cognitive impairment, requiring physicians to be guided by their principles, clinical observations, and judgment.

However, within this framework it is not acceptable to reduce logical reasoning to simply the harm principle. The principle of least restrictive means guides physicians on how to organize the sometimes difficult discussion with patients about their driving. It directs physicians

to build the discussion in its entirety gently and stepwise by first educating patients about the reasons for concern and, if possible, enabling them to come to their own decision about stopping driving before arriving at the need to inform the provincial licensing body. The reciprocity principle guides us to acknowledge how taking away a patient's right to drive affects his or her lifestyle. There is some duty under this principle to identify and even provide alternative means of transportation such as assisting individuals to register with community transit services. If these social services are not available, there is some obligation under the principle of reciprocity for physicians to advocate for their delivery. One place to start might be to join a local initiative to develop an age-friendly community, promoted by the Public Health Agency of Canada, that considers the transportation needs of seniors.[5] The transparency principle guides us to be clear and honest about the reasons why the medical condition might affect driving safety. It also guides the clinician to seek consent to involve others in the discussion, such as family members, and to inform the patient about the physician's responsibility to notify the provincial licensing body. It might be helpful to review and complete the notification form together.[6] Inclusivity and transparency help to normalize the problem and its consequences and position the decision as an outcome of collective good governance rather than a punishment or stigma.

Conclusion

Upshur's framework clarifies that intervention is justified simply when the risk of harm to others exists, but it does not eliminate uncertainty from the assessment of harm. It directs the stepwise discussion about the need to intervene, but it does not remove the challenge of educating a resistant patient. It obligates the physician to provide options and advocate for filling gaps in transit services when a patient is affected by a public health intervention, but it does not empower the physician to direct municipal plans. And it positions the decision transparently as the shared outcome of good governance for the sake of public health and service, without removing the need for the physician to seek consent from patients and their family members before relaying their concerns to each other.

Defensive driving means driving with genuine concern for the safety of others.[7] Drivers have a responsibility to prevent harm to others. Physicians are obligated to intervene when a patient's medical condition interferes with this responsibility.

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Competing interests

None declared

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References

1. Levitt C, Katz A, Mang E, Safarov A. Ten most notable family medicine research studies in Canada. *Can Fam Physician* 2015;61:523-7.
2. Upshur RE. Principles for the justification of public health intervention. *Can J Public Health* 2002;93(2):101-3.
3. Weir E, Schabas R, Wilson K, Mackie C. A Canadian framework for applying the precautionary principle to public health issues. *Can J Public Health* 2010;101(5):396-8.
4. Canadian Medical Association. *CMA driver's guide. Determining medical fitness to operate motor vehicles*. 8th ed. Ottawa, ON: Canadian Medical Association; 2012.
5. Public Health Agency of Canada [website]. *Age-friendly communities*. Ottawa, ON: Public Health Agency of Canada; 2016. Available from: **www.phac-aspc.gc.ca/seniors-aines/afc-caa-eng.php.** Accessed 2016 Dec 17.
6. Ontario Ministry of Transportation [website]. *Physicians' duty to report patients*. Toronto, ON: Government of Ontario; 2016. Available from: **www.mto.gov.on.ca/english/dandv/driver/medical-review/physicians.shtml.** Accessed 2017 Mar 3.
7. Ontario Ministry of Transportation [website]. *Official MTO driver's handbook*. Toronto, ON: Government of Ontario; 2013. Available from: **www.mto.gov.on.ca/english/dandv/driver/handbook/index.shtml**. Accessed 2016 May 27.