

Navigating the Intersection of Firearms, Dementia, Depression and Aging

Tony Rosen, MD MPH

Associate Professor of Emergency Medicine
Weill Cornell Medicine / NewYork-Presbyterian Hospital

Jennifer Spoeri, MA

Executive Director
National Adult Protective Services Association (NAPSA)

10/10/23, Eastern Pennsylvania Geriatrics Society
Slides courtesy of Emmy Betz, MD (MARIAN.BETZ@CUANSCHUTZ.EDU)

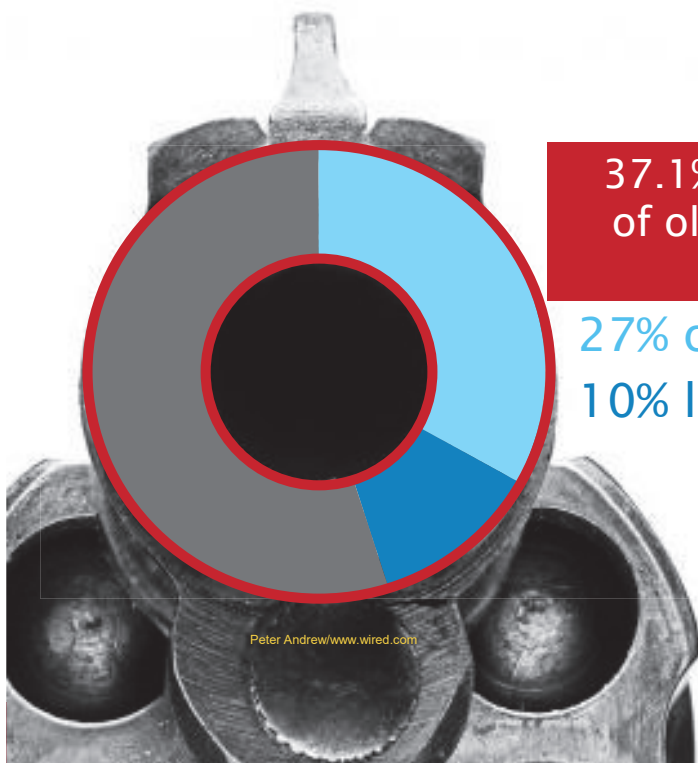


Background

Prevalence of firearms in the US, risk of firearm-related injury in older adults, and logistics around firearm access in dementia

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Household firearm prevalence (65+)



37.1% (95%CI 34.9–39.4%)
of older adult households
have firearm(s)

27% own a gun

10% live with gun owner

Carter et al. Prev Med 2022.

Characteristics of older firearm owners (50-80 years)

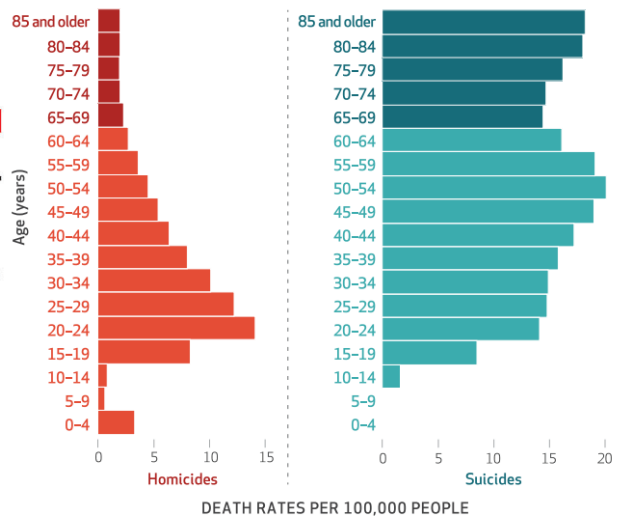
	Adjusted OR
Male	3.64
White, non-Hispanic	1.88
Veteran	2.49
Kids in/visit home	1.45
Income >\$60k	1.74
Rural	2.84
Midwest (vs NE)	1.87
South (vs NE)	2.06
West (vs NE)	2.32
Also adjusted for age, education, marital status, self-rated health	



Carter et al. Prev Med 2022.

EXHIBIT 1

Age-adjusted death rates per 100,000 people in the United States, 2007-17



SOURCE Authors' analysis of data on the number of deaths from the National Vital Statistics System of the National Center for Health Statistics and of population estimates from the Census Bureau.
NOTE Homicides include deaths related to legal intervention (for example, police-involved shootings).

VIOLENCE

Health Affairs 2019;38(10):1630-1637.
By Tony Rosen, Lena K. Makaroun, Yeates Conwell, and Marian Betz

OVERVIEW

Violence In Older Adults: Scope, Impact, Challenges, And Strategies For Prevention

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Firearm injury risks in older adults

Suicide

- 84% age 50+ firearm deaths due to suicide
- Firearms most common method of suicide among people with dementia
 - 73% vs 50% (all ages)
- Dementia as suicide risk factor

Web-based Injury Statistics Query and Reporting System. Centers for Disease Control and Prevention
Seyfried LS et al. Predictors of suicide in patients with dementia. *Alzheimers Dement*. 2011;7(6):567-73.
Choi NG et al. Physical health problems as a late-life suicide precipitant: Examination of coroner/medical examiner and law enforcement reports. *Gerontologist*. 2017. Epub Sep 18.

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Firearm injury risks in older adults

Homicide

- Dementia can involve hallucinations, delusions, agitation, aggression
 - Depending on symptoms, person with dementia may pose a risk to others

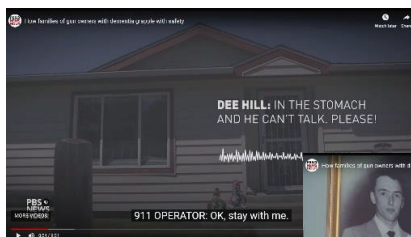
Lyketsos CG et al. Mental and behavioral disturbances in dementia: Findings from the Cache County Study on Memory in Aging. *Am J Psychiatry*. 2000;157(5):708-14. Greene E et al. Granny, (don't) get your gun: competency issues in gun ownership by older adults. *Behav. Sci. Law*. 2007;25(3):405-23. Safe Return: Alzheimer's disease guide for law enforcement. 2006. Alzheimer's Association.

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Firearm injury risks in older adults

Unintentional

Impaired memory and judgment



<https://www.pbs.org/newshour/nation/unlocked-and-loaded-families-confront-dementia-and-guns>

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Laws & Logistics

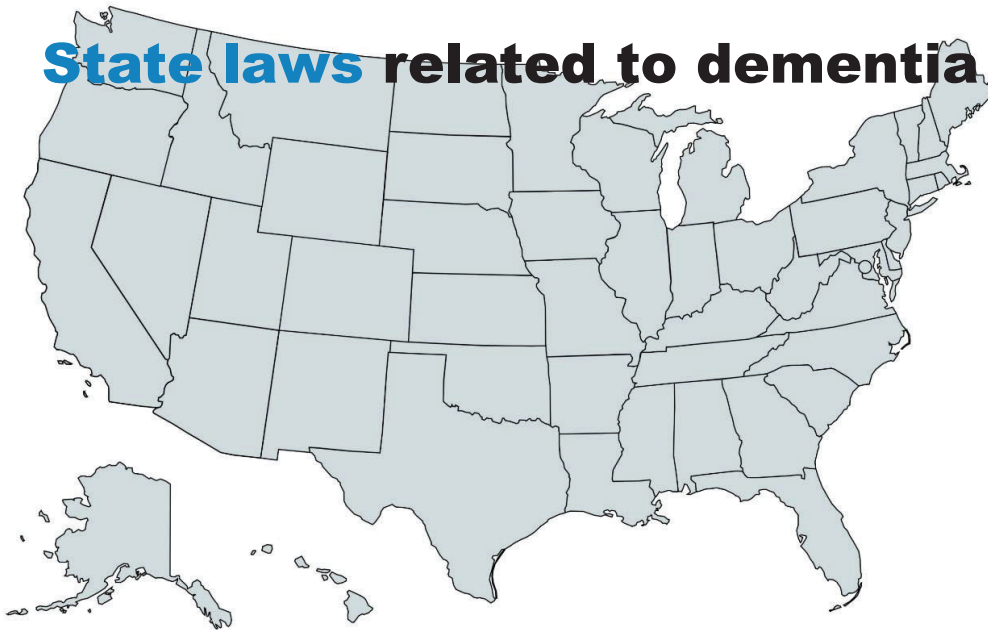
Relevant laws and practical considerations

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**No current federal or
state law prohibits
healthcare providers
from discussing firearm
safety with patients**

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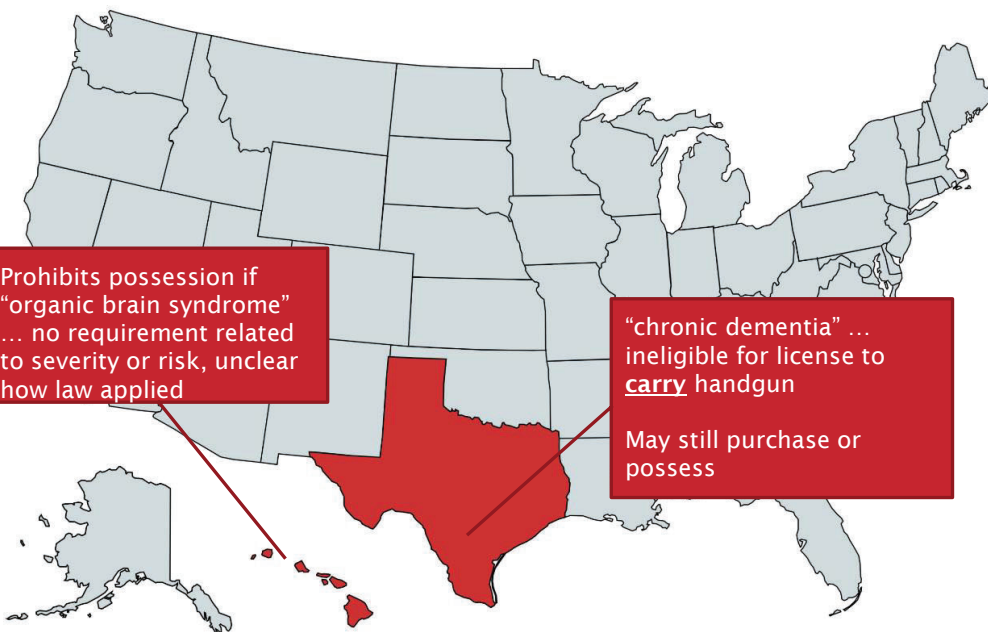
State laws related to dementia



Created with mapchart.net ©

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State laws related to dementia & firearms



H.R.S. § 134-7(c)
H.R.S. § 134-2(c)
Texas Gov't Code § 411.172(e)(5)(C)
Texas Gov't Code § 411.172

Betz ME et al. Firearms and Dementia: Clinical Considerations. *Ann Intern Med.* 2018;169(1):47-49. doi:10.7326/M18-0140

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Health Care Providers

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Medical Trainees

RESEARCH

Open Access

Talking about firearm injury prevention with patients: a survey of medical residents



Rocco Pallin^{1,2,3*}, Sara Teasdale⁴, Alicia Agnoli⁵, Sarabeth Spitzer⁶, Rameesha Asif-Sattar^{1,2},
Garen J. Wintemute^{1,2} and Amy Barnhorst^{2,7}

- Biggest barriers were to asking about firearms were not knowing what to do with patients' answers about access to firearms (72.1%), not having enough time (66.2%), not feeling comfortable identifying patients at risk for firearm injury (49.2%), and not knowing how to ask patients about firearm access (48.6%)
- 51.5% of respondents who had prior medical education about firearm injury prevention reported asking compared with 31.8% who had not received such education
- **More than 90% of respondents were interested in further education about interventions, what questions to ask, and legal mechanisms to separate dangerous people from their firearms**

Older Adult Openness to Physician Questioning About Firearms

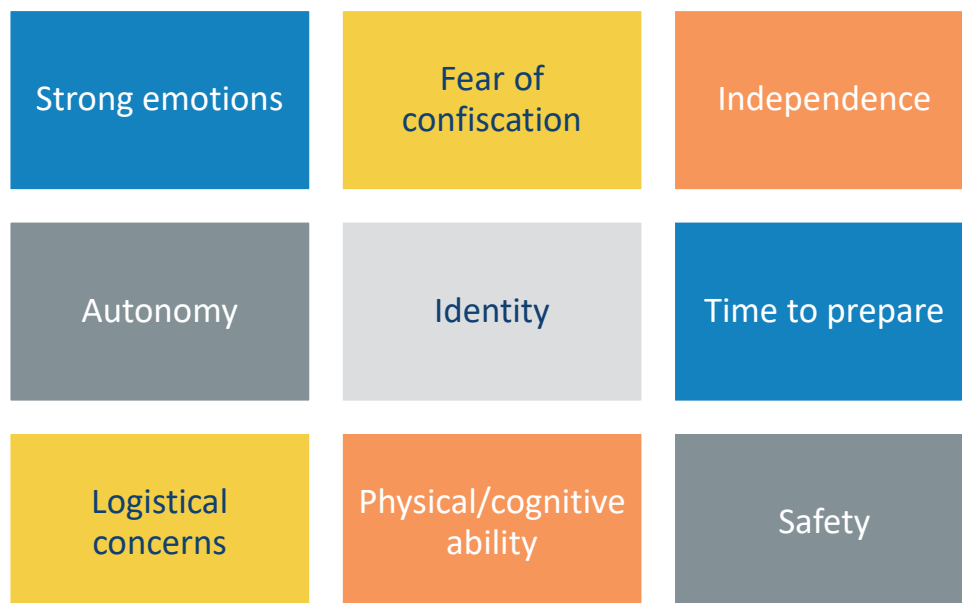
Marian E. Betz MD, MPH, Hanna K. Flaten BA, Matthew Miller MD, MPH, ScD

- 62% of older adults reported comfort with physicians asking about the presence of a firearm in the home in the context of depression, suicidality, or cognitive impairment, with less than 20% of patients reporting discomfort with questioning
- many physicians do not routinely question patients about the presence or safe storage of firearms, although numerous physician groups and publications have called for physician engagement in firearm safety efforts.
- patients support context-specific questioning more than routine screening

...given the high rates of suicide among older adults, especially men—the majority of whom, if they die by suicide, will have used a firearm—it is critical that physicians counsel at-risk patients to reduce firearm access. Failing to do so is tantamount to ignoring the suicide prevention intervention for which evidence is most compelling

Decision-making about firearm access

Perhaps similar to decisions about “driving retirement”?





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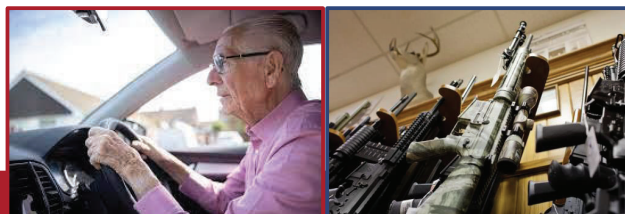
Cars vs. Guns

- 83% of adults aged ≥ 70 years have a driver’s license and approximately 44% of current drivers drive daily
- 42% of those aged ≥ 65 years live in a home with a firearm, and nearly 70% of older firearm owners have handled their gun(s) at least once in the past year

Both driving and firearm use require physical ability (e.g., manual dexterity, strength, vision, and reflexes) and cognitive processing (e.g., memory and situational awareness); any of these can be affected by myriad medications, medical conditions, or age-related physiologic changes

- Fatal crash rates rise with age, especially above age 70; in 2020, about 7,500 older adults died in car crashes
- Rates of violence also vary with age, with high rates of firearm suicide among older men, and approximately 16% of all U.S. firearm deaths were among adults aged ≥ 65

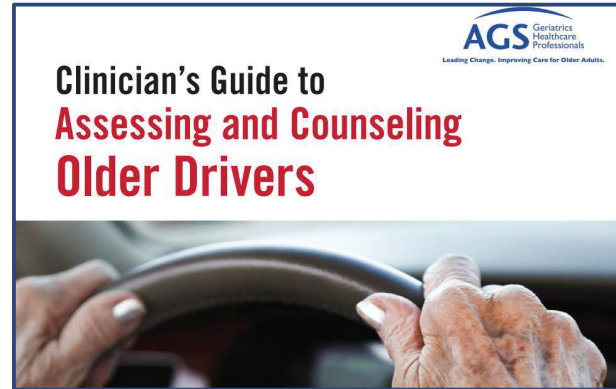
both activities may pose a risk of injury or death to the user and to those around them, particularly if physical or cognitive impairments are present.



Cars, Guns, Aging, and "Giving Up the Keys"

Marian E. Betz, MD, MPH,^{1,2,*} Evan R. Polzer, MA,³ Christopher E. Knoepke, PhD, MSW,^{4,5}
Laura C. Prater, PhD, MPH, MHA,^{6,7} Joseph A. Simonetti, MD, MPH,^{3,8} Teresa M. Lee,
MD,⁷ Lauren E. Meador, MPH,^{1,9} and Kathryn A. Nearing, PhD, MA^{1,9}

Resources exist to support planning for driving transitions, including guidelines, educational materials, "advance driving directives"

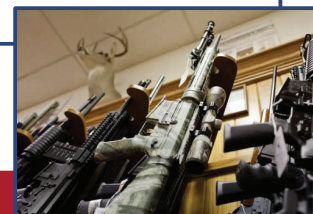


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- Firearm-specific "advance directives" may help older adults and families proactively discuss firearm access and consider setting conditions under which firearm retirement would occur
- only 22% of older gun owners had a plan for transferring their firearm in the case of cognitive impairment

Key unanswered question: *How to engage older adult firearm owners in making plans for when and how to voluntarily reduce access to or use of firearms?*

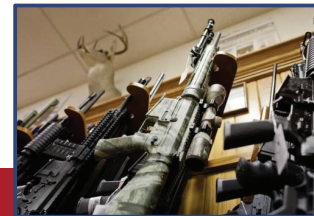


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Cars vs. Guns

- “retirement” was not an acceptable term for firearms
- reducing driving may affect daily independence more, but there are few alternatives for the psychological safety conferred by firearms
- there are specific firearm-related legal concerns but more driving-related regulations, policies, and resources



A Dangerous Case



*You can't take away my driver's license.
I have guns, and I'm going to kill you?*



Adult Protective Services Perspective



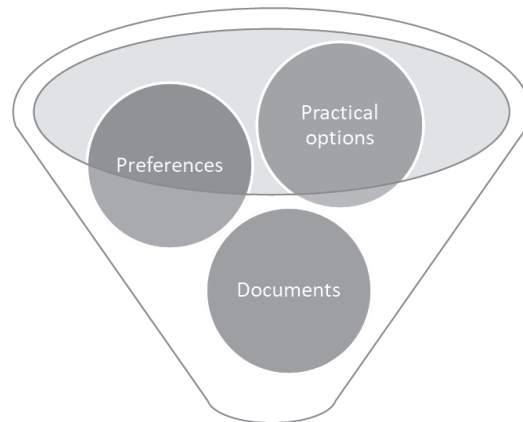


Firearm Life Plan

A new resource for the public

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BACKGROUND ON THE FIREARM LIFEPLAN SITE AND PROJECT



FIREARM
LIFE·PLAN 

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FIREARM LIFE PLAN HOME ABOUT FIREARM LIFE PLAN RESOURCES

FIREARM RESPONSIBILITY AND PLANNING:
Creating a Firearm Life Plan

Download Full Toolkit

What's our plan?

CREATE A FIREARM LIFE PLAN

Stay educated, stay responsible, stay protected. Learn about an easy-to-use toolkit to facilitate conversations about firearms, aging, and planning for the future together.

free – anonymous – simple steps

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WORKSHEET: FIREARM INVENTORY

This document helps you and others know what you want to happen with your firearms and who you trust to enact your Firearm Life Plan. You fill out a paper version and share it only with those you want to. Update it whenever you want.

Download Now (PDF)

WORKSHEET: LEGACY MAP

This document gives you a place to document the memories and meanings attached to your firearms. Like the inventory, you share it with only those you want.

Download Now (PDF)

CONVERSATION STARTERS

These conversations can be hard. Learn how to start talking about creating a Firearm Life Plan with some conversation starters, whether you're the firearm owner or a family member.

Download Now (PDF)

WARNING SIGNS AND ASSESSMENTS

Knowing some potential warning signs can help you and those around you ensure safety. This section also covers when to consider having an experienced firearm user assess your skills.

Download Now (PDF)

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A	B	C	D	E
Firearm Details	Where is it?	Where it will go? And who gets it?	When?	Notes
Example: Smith & Wesson 629, Good Condition, 123ABC456	Gun safe in my house Code: 21-56-96	<u>WHERE:</u> Gift to my son <u>WHO:</u> Pass down to son	Move into safety deposit box whenever my son tells me it's better off there (like if I develop dementia or physical disabilities)	This was given to me by my father, has sentimental value
Example: 2010 Ruger 10/22 rifle, good condition, 567EFG890	Gun safe in my house Code: 21-56-96	<u>WHERE:</u> Donate/gift to local youth firearm organization <u>WHO:</u> County Youth Shooting Sports	When I move into a retirement home	Good beginner's rifle, can help teach grandkids how to shoot
Example: Ear protection	Storage shed on my property Code: None	<u>WHERE:</u> Donate/gift to local youth firearm organization <u>WHO:</u> Douglas County Youth Shooting Sports	When I move into a retirement home, at end of 2021	Good pair of earmuffs, still functional
Example: Cobra Arms Freedom .38, poor condition, 567CAF890	Lockbox in bedroom closet Code: 0328	<u>WHERE:</u> Destroy it at local police department <u>WHO:</u> Douglas County Sheriff's Department	When I die or move to assisted living	Firearm was damaged. Was sold to me for cheap and should not be given or sold to anyone else.
Example: 1949 M1 Carbine, excellent condition	Gun safe in my house Key location: xxxx	<u>WHERE:</u> Transfer to traveling Korean War Exhibit <u>WHO:</u> Jeff Jackson, 719-555-5555	As soon as possible	Excellent condition and was willed to me by my uncle who served in Korea. Mr. Jackson manages a traveling Korean War exhibit and has expressed interest in the firearm in the past.



WORKSHEET: LEGACY MAP

This document gives you a place to document the memories and meanings attached to your firearms. Like the inventory, you share it with only those you want.

LEGACY MAP

Firearms can have personal, familial, historical, financial, and sentimental value for some people, while for others they are mainly a tool for specific purposes. Part of your Firearm Life Plan means thinking about what firearms mean to you—what legacy you want to leave, and what you want your loved ones to know.

This worksheet helps you record memories, meanings, and messages about your firearms.

Take your time, and then share it with those you care about. Use it as a way of expressing your legacy, lineage, or history with certain firearms. Invite others to share their thoughts, especially if you have memories with them. These questions are just examples to get you started.

- **Think about the firearms you own. Do you have memories or stories about any of them? What do you want others to know about them?**
- **Think about how you learned to shoot and handle a firearm safely. Who first taught you? Are there other firearm instructors or training that was important to you?**
- **How have firearms been important to you in your life? What did you use them for? Do you have any memorable experiences you want to share?**

Q&A, Discussion



Thank you to: Drs. Betz and Simonetti for their slides and significant contribution to this field

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