

## Supplementary Data

SUPPLEMENTARY TABLE S1. TRANSMISSION OF INSTRUCTIONS FOR USE BY PEOPLE WITH DIABETES TO CAREGIVERS, AND PROPER APPLICATION OF INSTRUCTIONS FOR USE WITH NASAL GLUCAGON AND INJECTABLE GLUCAGON BY CAREGIVERS AND ACQUAINTANCES

	Group 1		Group 2		<i>Root causes of errors in use</i>
	<i>People with diabetes (N=16) who taught the step to caregiver (%)</i>	<i>Caregivers (N=16) who completed the step successfully (%)</i>	<i>Noninstructed acquaintances (N=15) who completed the step successfully (%)</i>	<i>step successfully (%)</i>	
NG					
Remove spray device from yellow tube	100	100	100	100	
Hold device between fingers and thumb	100	100	100	100	
Do not test before use	31	100	100	100	
Insert tip gently in one of the patient's nostrils	100	100	100	100	
Until your fingers touch the outside of the nose	75	100	100	100	
Push plunger firmly with the thumb	94	100	100	100	
Until the red-colored band on plunger is no longer visible	75	94	93	93	• Did not know to push plunger until colored band disappeared
Pull device out from nose after administration	50	100	100	100	
IG					
Remove flip-off seal from bottle	81	56	60	60	• Did not use bottle because did not reconstitute
Wipe rubber stopper on bottle with alcohol swab	88	19	7	7	• Did not notice vial and assumed syringe was pre-filled with the glucagon • Did not see instructions to clean • Cleaning did not cross their mind • Concerned about cleaning, but did not want to waste time
Remove needle protector from syringe	81	88	93	93	• Unable to locate alcohol swabs • Used insulin syringe instead of injectable glucagon syringe
Inject entire contents of syringe into bottle of glucagon	100	56	20	20	• Did not attempt to use kit; would wait for paramedics • Said the vial was a second dose • Did not remember the vial from when instructed • Did not use the vial due to difficulty removing vial cap
Remove syringe from bottle	69	44	20	20	• Did not reconstitute or use vial
Swirl bottle gently until glucagon dissolves completely	100	44	13	13	• Did not reconstitute or use vial
(Clear and water-like consistency)	56	50	13	13	• Did not swirl, but twisted vial instead • Did not reconstitute or use vial

(continued)

SUPPLEMENTARY TABLE S1. (CONTINUED)

	Group 1		Group 2		Root causes of errors in use
	People with diabetes (N = 16) who taught the step to caregiver (%)	Caregivers (N = 16) who completed the step successfully (%)	Noninstructed acquaintances (N = 15) who completed the step successfully (%)		
Using the same syringe, hold bottle upside down	75	56	13		<ul style="list-style-type: none"> <li>• Did not reconstitute or use vial</li> <li>• Did not know how to withdraw solution from vial</li> </ul>
With needle tip remaining in solution, gently withdraw all solution from bottle	88	38	7		<ul style="list-style-type: none"> <li>• Did not reconstitute or use vial</li> <li>• Did not know how to withdraw solution from vial</li> </ul>
Cleanse injection site	88	13	7		<ul style="list-style-type: none"> <li>• Did not completely withdraw contents</li> <li>• Did not think to clean because in a hurry</li> <li>• Did not see instructions to clean</li> <li>• Unable to locate alcohol swab</li> </ul>
On buttock, arm, or thigh	75	13	7		<ul style="list-style-type: none"> <li>• Injected through clothing like an EpiPen</li> <li>• Injected into stomach, that is, what was familiar from prior experience</li> <li>• Injected wrist because of high concentration of blood vessels in wrist</li> </ul>
Insert needle into loose tissue and inject all of the solution	75	81	67		<ul style="list-style-type: none"> <li>• Injected only a partial dose</li> <li>• Did not inject any glucagon</li> <li>• Inject insulin instead of glucagon</li> </ul>
Apply light pressure at the injection site and withdraw the needle	38	38	13		<ul style="list-style-type: none"> <li>• Did not apply pressure to injection site, root cause not ascertained due to lack of time</li> </ul>
Press an alcohol swab against the injection site	19	0	13		<ul style="list-style-type: none"> <li>• Did not think to clean because in a hurry</li> <li>• Did not see instructions to clean</li> <li>• Unable to locate alcohol swab</li> <li>• Did not recall to use an alcohol swab</li> <li>• Did not think an alcohol swab was necessary</li> </ul>

IG, Injectable Glucagon; NG, Nasal Glucagon.