

Number of "Teach-Back" Attempts for Successfully Retaining Medication Information

Oralia V. Bazaldua, Pharm.D., FCCP, BCPS
Associate Professor



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Background

- Patients understand as little as 50% of health information they are told
- “Teach-Back” is consistently recommended to enhance recall and comprehension
- Little evidence to support its implementation
- the number of “teach-back” attempts necessary to reach a successful understanding of the specific concept is not known

A sub-analysis of:


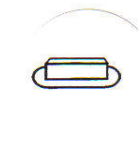
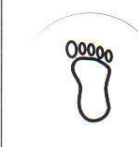

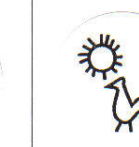

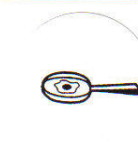
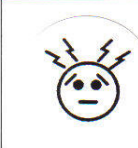
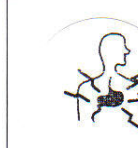
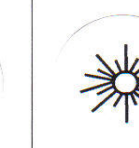


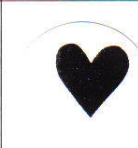
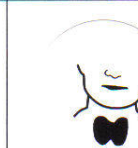
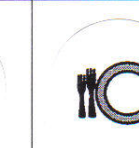


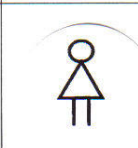


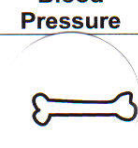



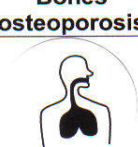
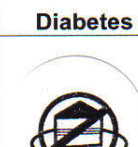
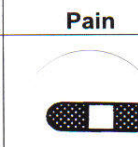
PICTOGRAMS: A Tool for Enhancing
Health Care Outcomes Among Underserved
Patients in Primary Care?

Resident Project

- Help patients understand medication use
 - “don’t know the indication”
 - “taking them wrong”
 - “don’t know how to read”
- Develop “pictograms”

PICTOGRAM GUIDE

Pictograms: A Tool for Enhancing Health Care Outcomes Among Underserved Patients in Primary Care?

				
Allergies	Cholesterol	Foot	Sleep	Morning
				
Arthritis	Cholesterol	Headaches	Stomach	Noon
				
Blood	Cholesterol	Heart	Thyroid	Evening
				
Blood Pressure	Depression	Hormones	Water (diuretic)	Bedtime
				
Bones (osteoporosis)	Diabetes	Pain	Water (diuretic)	
				
Breathing (asthma)	Diabetes	Pain		

Pictograms

- Represent most common medical conditions
- Represent time of day to take medications
- Serve as supplements to verbal medication counseling



PICTOGRAMS: A Tool for Enhancing Health Care Outcomes Among Underserved Patients in Primary Care?

OBJECTIVES

1. To determine if pictograms affixed to medication bottles enhance long-term recall of medication knowledge in patients identified as “**having difficulty**” with their medications.
2. To determine if literacy levels influence the efficacy of the above intervention.
3. To determine if an increase in medication knowledge improves long-term disease outcome measures such as blood pressure, HgA1c and lipid profiles.

METHODS

N=200 patients before clinic visit

1. Takes 3 or more medications
2. DM, HTN, Dyslipidemia
3. Has medication bottles with them
4. identified as “having difficulty” with medications -
i.e., patient is unable to report correct:
(a) name, (b) purpose, and (c) dose of each medication

S-TOFHLA test given and randomized to 1 of 2 groups:

1. Verbal instructions alone providing correct information
2. Verbal instructions PLUS pictograms

Knowledge is tested again in 1 and 3 months.

Baseline Bp, HgA1c, cholesterol will be compared with that at 3 months

Example



METHODS

for Verbal Instructions

Before clinic visit

1. Research assistants completed intake form
 - Name, purpose, dose of each medication
2. Form with medication regimen confirmed by doctor

After clinic visit

1. Research assistants provided verbal instructions of correct medication regimen
2. Asked patient to repeat information (“teach-back”)
3. Repeated loop until 100 % correct
4. Documented number of “teach-back” attempts necessary

Results (knowledge)

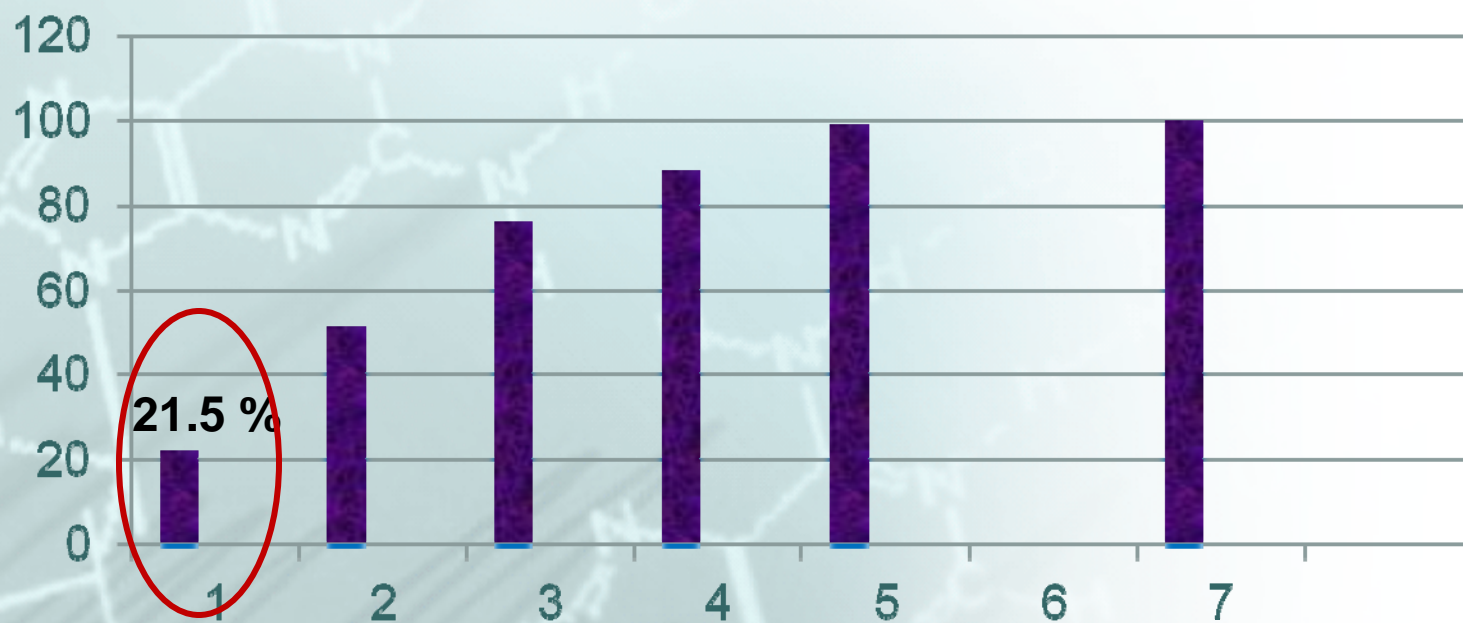
BASELINE	Verbal Only	Verbal + Pictograms
Total rx's	518 (avg=7)	511 (avg=6)
Names correct	277 (53%)	279 (55%)
Purpose correct	377 (73%)	370 (72%)
Dose correct	444 (86%)	435 (85%)

Total Medication Knowledge

	Verbal ONLY	Verbal PLUS PICTOGRAMS	
Correct at baseline	71 %	71 %	P=0.896
Correct at 1 mo	88 %	90 %	P=0.534
Correct at 3 mo	92 %	94 %	P=0.555
Total improvement	21%	23 %	P=0.507

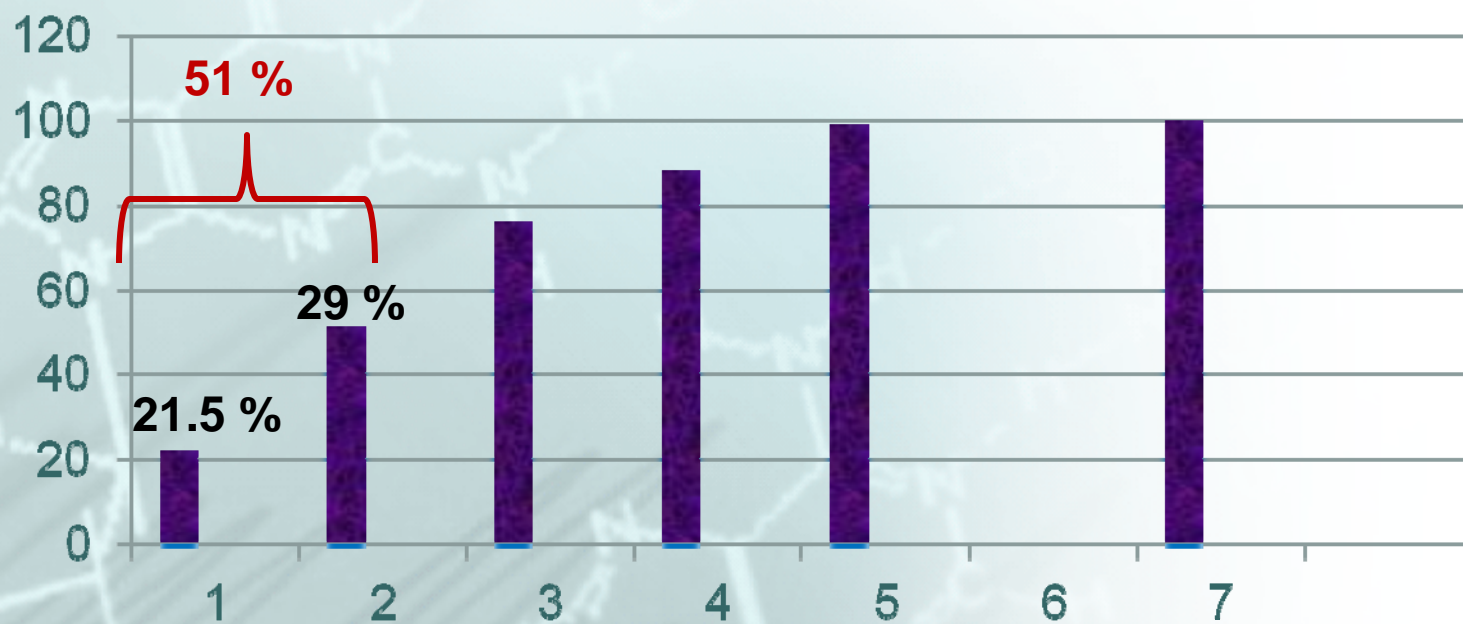
RESULTS

Number of “teach-back” Attempts



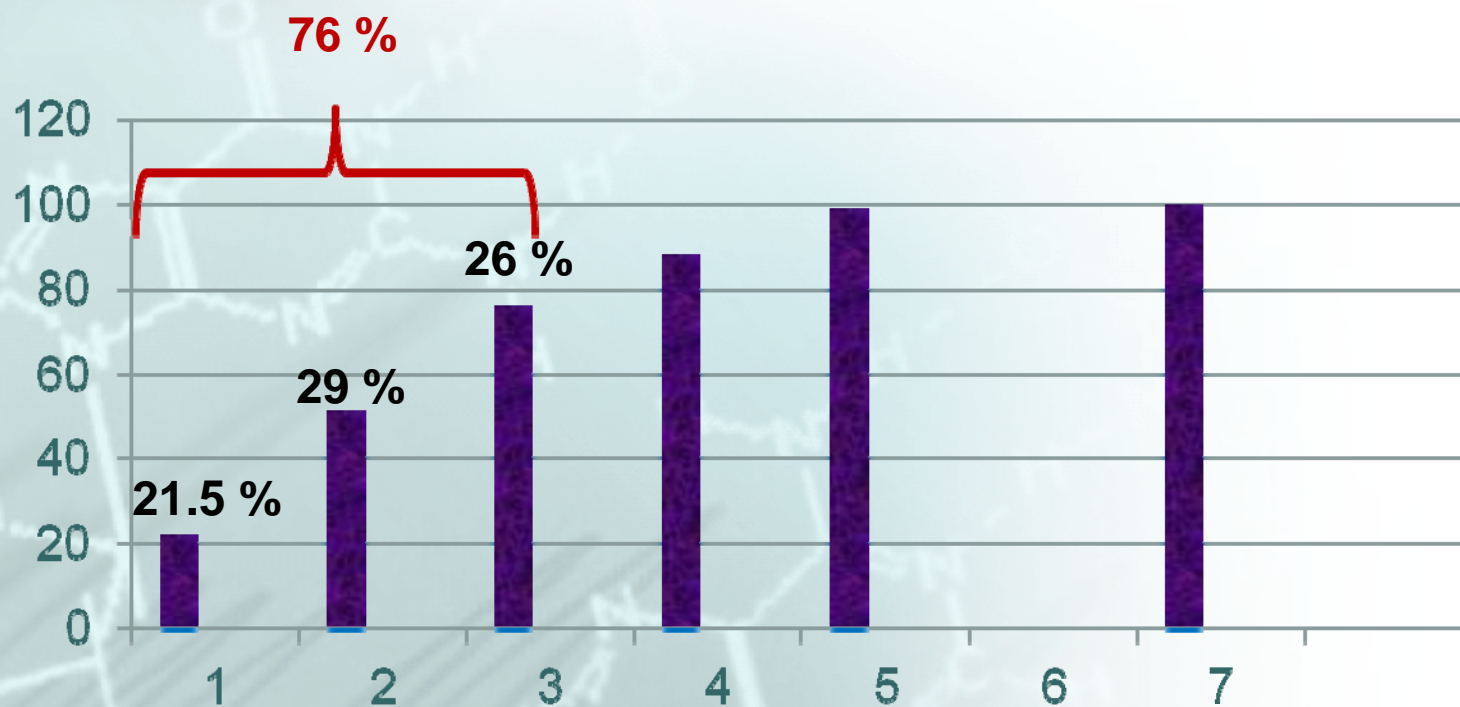
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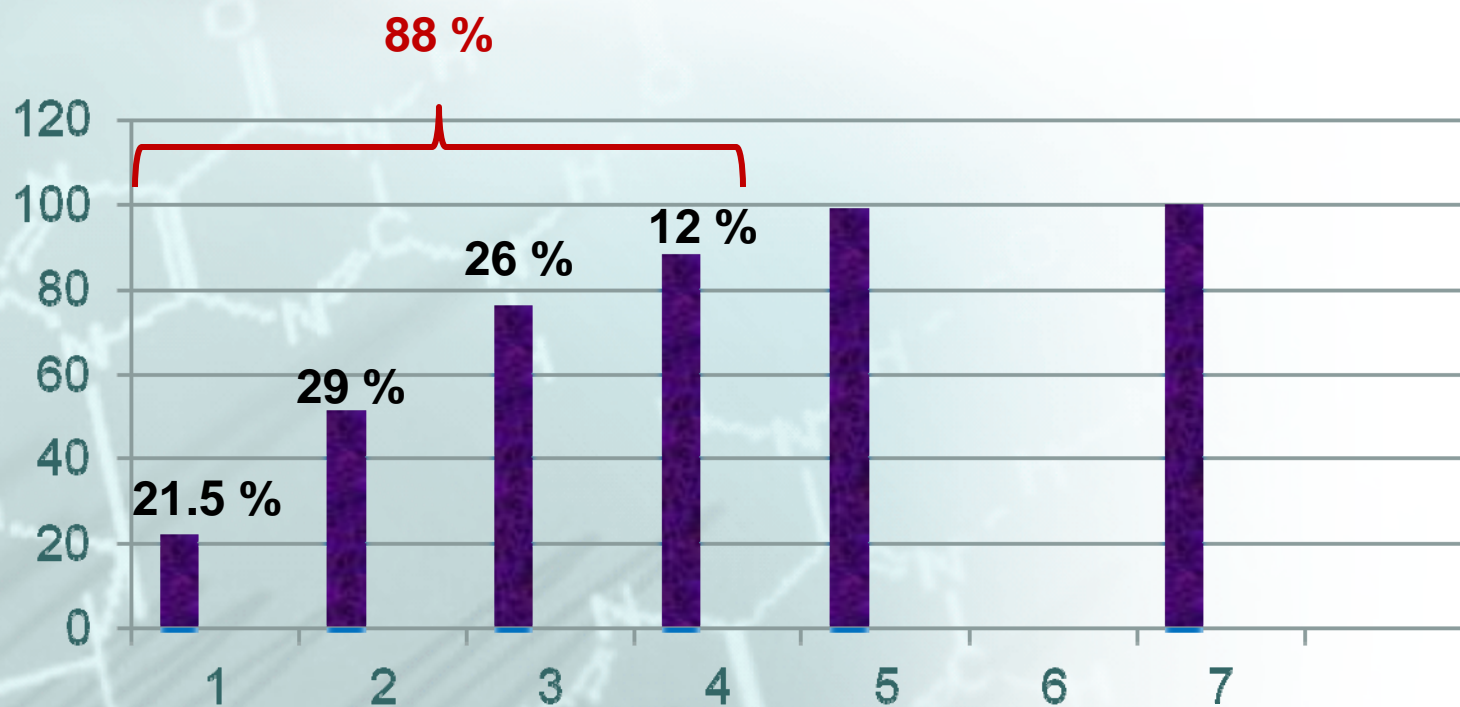
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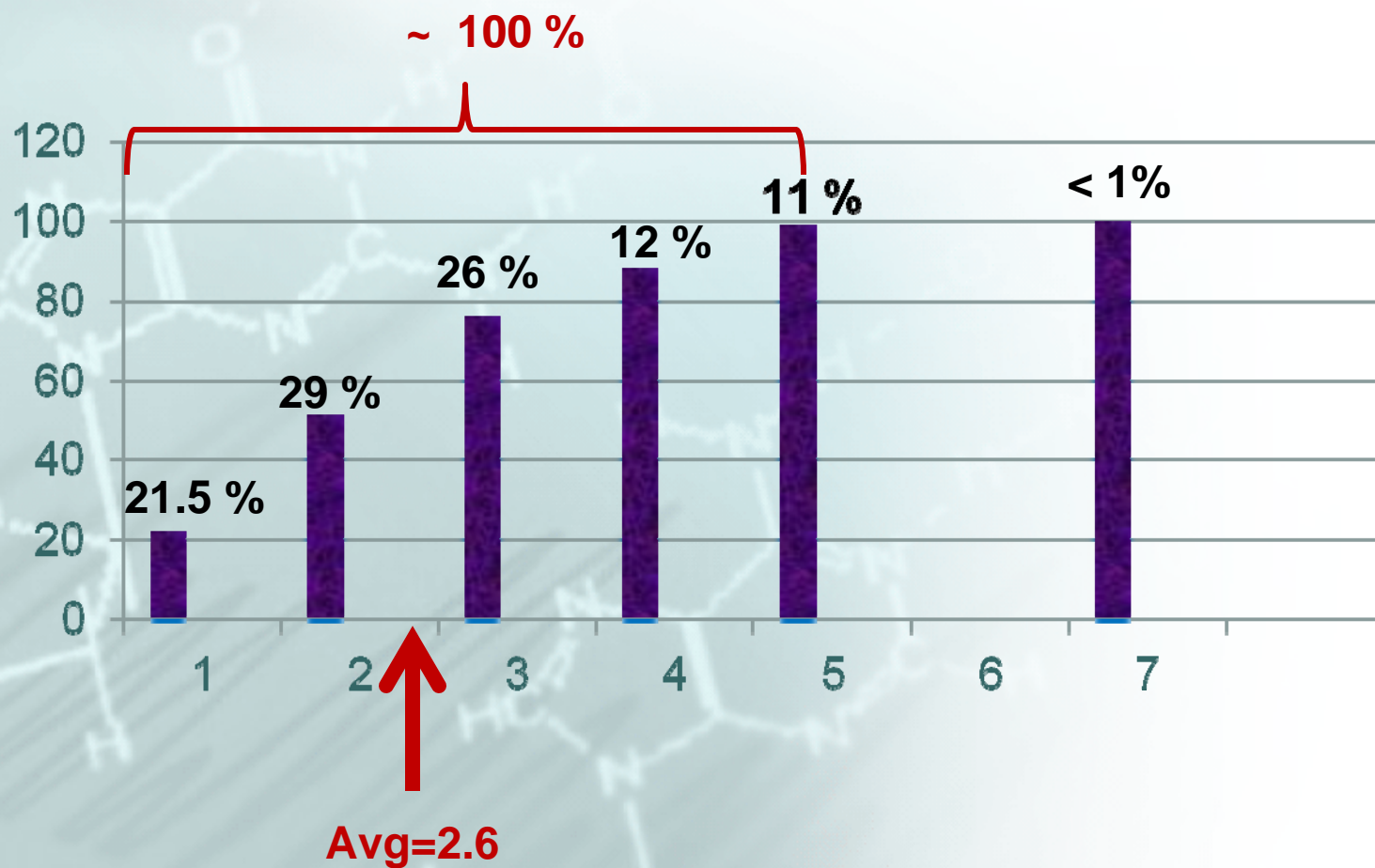
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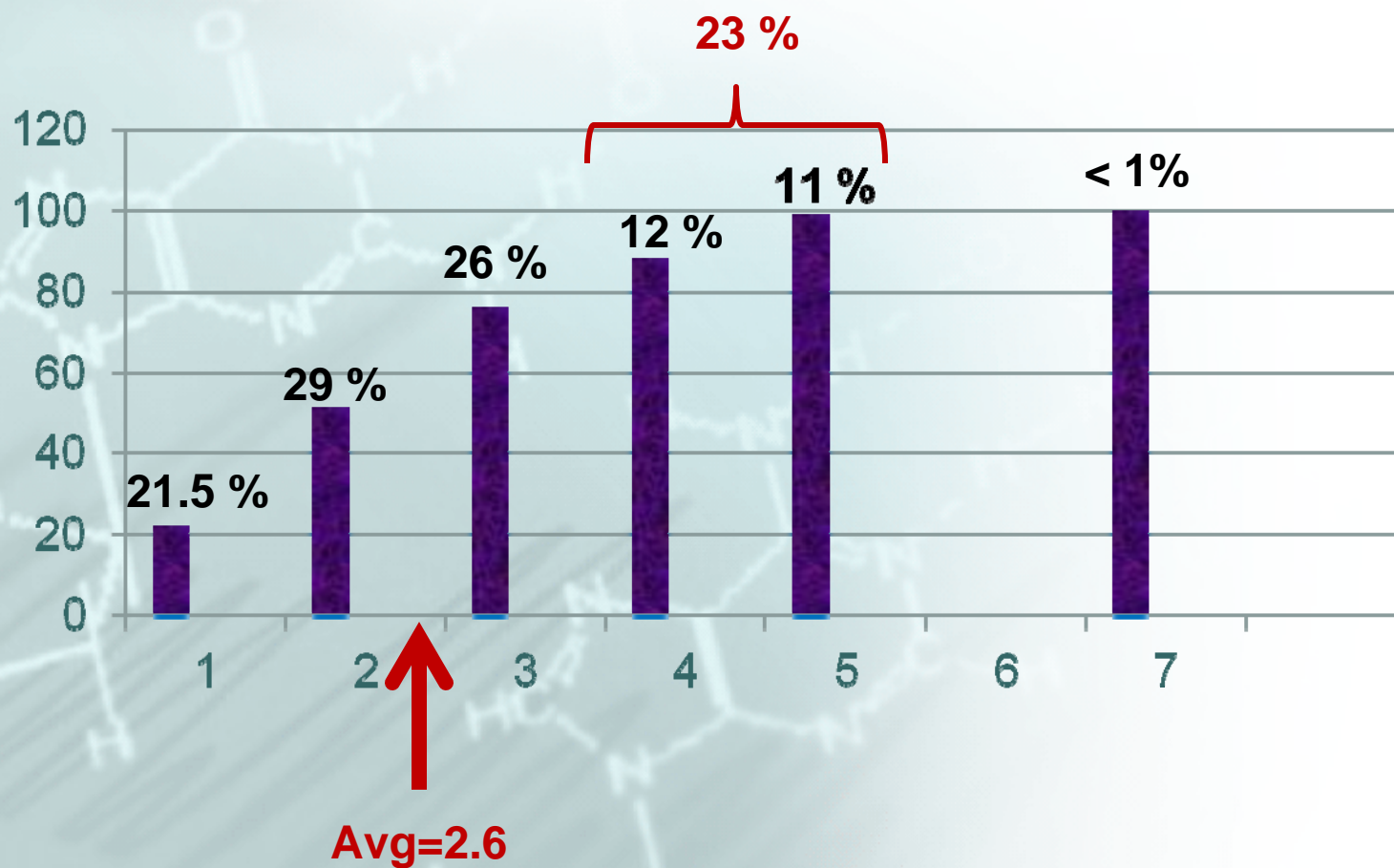
RESULTS

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Number of “teach-back” Attempts



Conclusions/Implications

- It will likely require at least 2 to 3 attempts to close the loop when using the teach-back method for medication instructions.
- This method may prove time consuming and thus limit its use in the practice setting.
- Innovative methods to improve the efficiency of using this strategy should be explored..

Results

Attempts	Patients successfully repeating 100 %				
1	31 (21.5 %)	}	50.7%	}	76.4%
2	42 (29.2 %)				
3	37 (25.7 %)				
4	17 (11.8 %)	}	88.2%		
5	16 (11.1 %)				
6	0 (0 %)				
7	1 (0.7 %)				

Results

(“teach-back” loops)

- N = 144 patients
- 6.5 medications per patient
- 21.5% successful after 1 education session
- An additional 29% were successful after 2 loops
- nearly 23% required 4 and 5 tries
- average number of teach-back loops required to achieve 100% of the information correct was 2.6 times.

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