



CASES

# INSIGHTS INTO LUNG CANCER

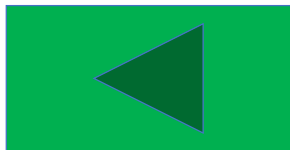
August, 2019

Washington, DC, US













# HOW TO NAVIGATE THIS REPORT



Click to move to topic of interest or ARS supporting data



Click to return to previous slide

Topic	Slide
Meeting Objectives	
Report Snapshot	
Participant Demographics	
Key Insights – Treatment of <i>EGFR</i> Mutation- and <i>ALK</i> -Positive NSCLC	
Key Insights – First-Line Treatment of Pan–Wild-Type Squamous NSCLC and Non-squamous NSCLC	
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ARS Data – Treatment of <i>EGFR</i> Mutation- and <i>ALK</i> -Positive NSCLC	
ARS Data – First-Line Treatment of Pan–Wild-Type Squamous NSCLC and Non-squamous NSCLC	
ARS Data – Current Treatment of Progressive Disease	

# MEETING OBJECTIVES



To gain advisors' perspectives on the following

- > Management of patients with NSCLC and *EGFR* or *ALK* mutations
- > Current use of treatment options including immunotherapy in advanced NSCLC
- > Treatment of progressive disease

- > A moderated roundtable discussion focusing on treatment of NSCLC was held on August 24, 2019, in Washington, DC
- > Disease state and data presentations were developed in conjunction with a medical expert from Indiana University
- > The group of advisors comprised 12 community oncologists
- > Insights on the following therapies were obtained: afatinib, alectinib, atezolizumab, bevacizumab, brigatinib, carboplatin, ceritinib, crizotinib, dacomitinib, docetaxel, erlotinib, gefitinib, gemcitabine, lorlatinib, *nab*-paclitaxel, necitumumab, nivolumab, osimertinib, pembrolizumab, pemetrexed, ramucirumab
- > Data collection was accomplished through use of audience response system questioning and in-depth moderated discussion



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Participant Demographics



# PARTICIPANT DEMOGRAPHICS (N = 9)

What percentage of the patients that you see have NSCLC?



Approximately what percentage of your patients with NSCLC have adenocarcinoma?



# PARTICIPANT DEMOGRAPHICS (N = 9)

Approximately what percentage of your patients with NSCLC have squamous histology?



Approximately how many patients with *EGFR*-mutated NSCLC have you treated in the last year?





# PARTICIPANT DEMOGRAPHICS (N = 9)

Demographic Data 1



- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6

Demographic Data 2



- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6

Summary text block containing demographic information.



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## Key Insights

TREATMENT OF *EGFR* MUTATION-,  
*ALK* MUTATION-, AND *NTRK* FUSION-  
POSITIVE NSCLC

# TOPLINE TAKEAWAYS: TREATMENT OF *EGFR* MUTATION-, *ALK* MUTATION-, AND *NTRK* FUSION-POSITIVE NSCLC



**KEY TAKEAWAYS:**

[Redacted content]

**KEY TAKEAWAYS:**

[Redacted content]

**KEY TAKEAWAYS:**

[Redacted content]

# TREATMENT OF *EGFR* MUTATION-, *ALK* MUTATION-, OR *NTRK* FUSION-POSITIVE NSCLC



Topic	Insights and Data
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[Blurred Topic]	[Blurred Insights and Data]
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# QUOTES: TREATMENT OF *EGFR* MUTATION-, *ALK* MUTATION-, AND *NTRK* FUSION-POSITIVE NSCLC

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[Blurred text block containing multiple paragraphs of text, likely representing quotes or clinical trial descriptions.]



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## Key Insights

FIRST-LINE TREATMENT OF PAN-WILD-TYPE  
SQUAMOUS AND NONSQUAMOUS NSCLC

# TOPLINE TAKEAWAYS: FIRST-LINE TREATMENT OF PAN-WILD-TYPE SQUAMOUS AND NON-SQUAMOUS NSCLC



**KEY TAKEAWAYS**

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**KEY TAKEAWAYS**

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**KEY TAKEAWAYS**

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# FIRST-LINE TREATMENT OF PAN-WILD-TYPE SQUAMOUS AND NON-SQUAMOUS NSCLC



Topic	Insights and Data
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## Key Insights

CURRENT TREATMENT OF PROGRESSIVE  
DISEASE

# TOPLINE TAKEAWAYS: CURRENT TREATMENT OF PROGRESSIVE DISEASE



[REDACTED]

[REDACTED]

[REDACTED]

# CURRENT TREATMENT OF PROGRESSIVE DISEASE



Topic	Insights and Data
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# QUOTES: CURRENT TREATMENT OF PROGRESSIVE DISEASE



Quote 1: [Blurred text]

Quote 2: [Blurred text]

Quote 3: [Blurred text]

Quote 4: [Blurred text]

Quote 5: [Blurred text]

Quote 6: [Blurred text]

Quote 7: [Blurred text]



## Advisor Key Takeaways



# KEY TAKEAWAYS\*



<p>1. <b>Case 1: [Faded]</b></p> <p>2. <b>Case 2: [Faded]</b></p> <p>3. <b>Case 3: [Faded]</b></p>	<p>1. <b>Case 4: [Faded]</b></p> <p>2. <b>Case 5: [Faded]</b></p> <p>3. <b>Case 6: [Faded]</b></p>
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# KEY TAKEAWAYS\*



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<p>[Blurred text]</p>	<p>[Blurred text]</p>

\*Two advisors did not provide key takeaways.





**CASES**

**Strategic Considerations**

# STRATEGIC CONSIDERATIONS



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- 3. [Blurred text]
- 4. [Blurred text]
- 5. [Blurred text]



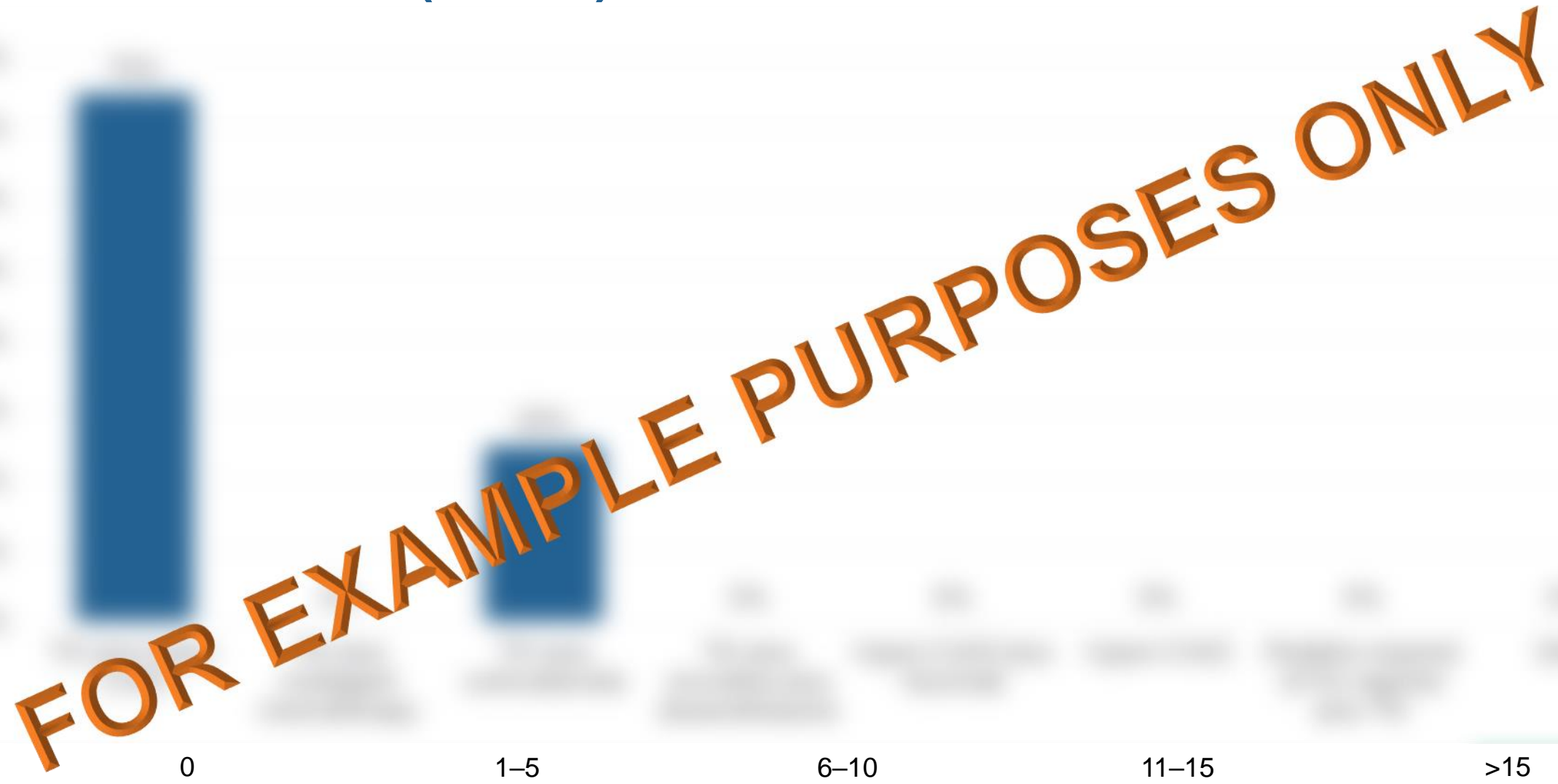
## ARS Data – Baseline Usage Polling

# FOR A FIRST-LINE NSCLC PATIENT, I GENERALLY HAVE INFORMATION ON THE FOLLOWING (CHECK ALL THAT APPLY) (N = 9)



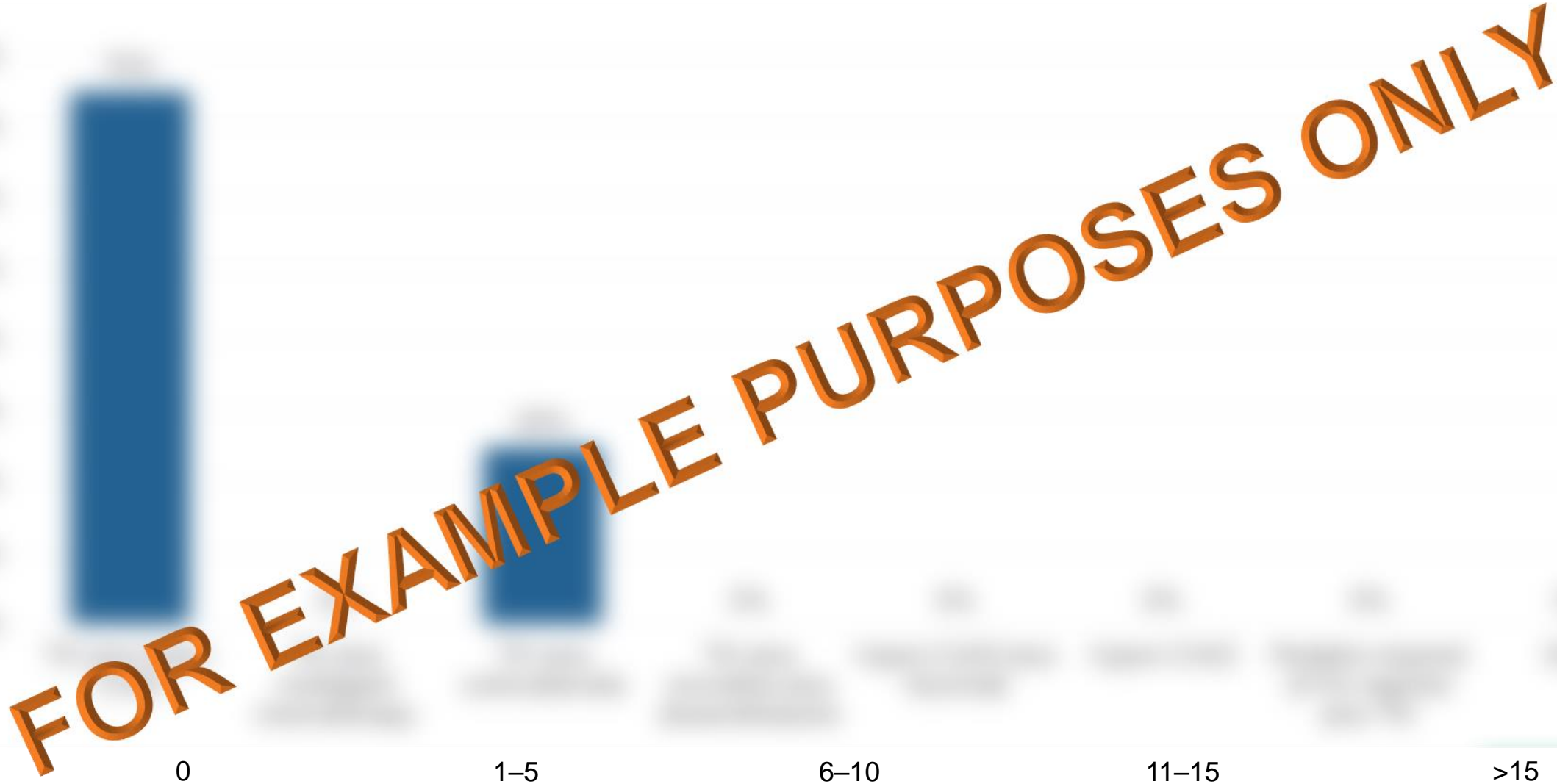
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH ALECTINIB? (N = 10)

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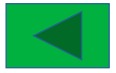
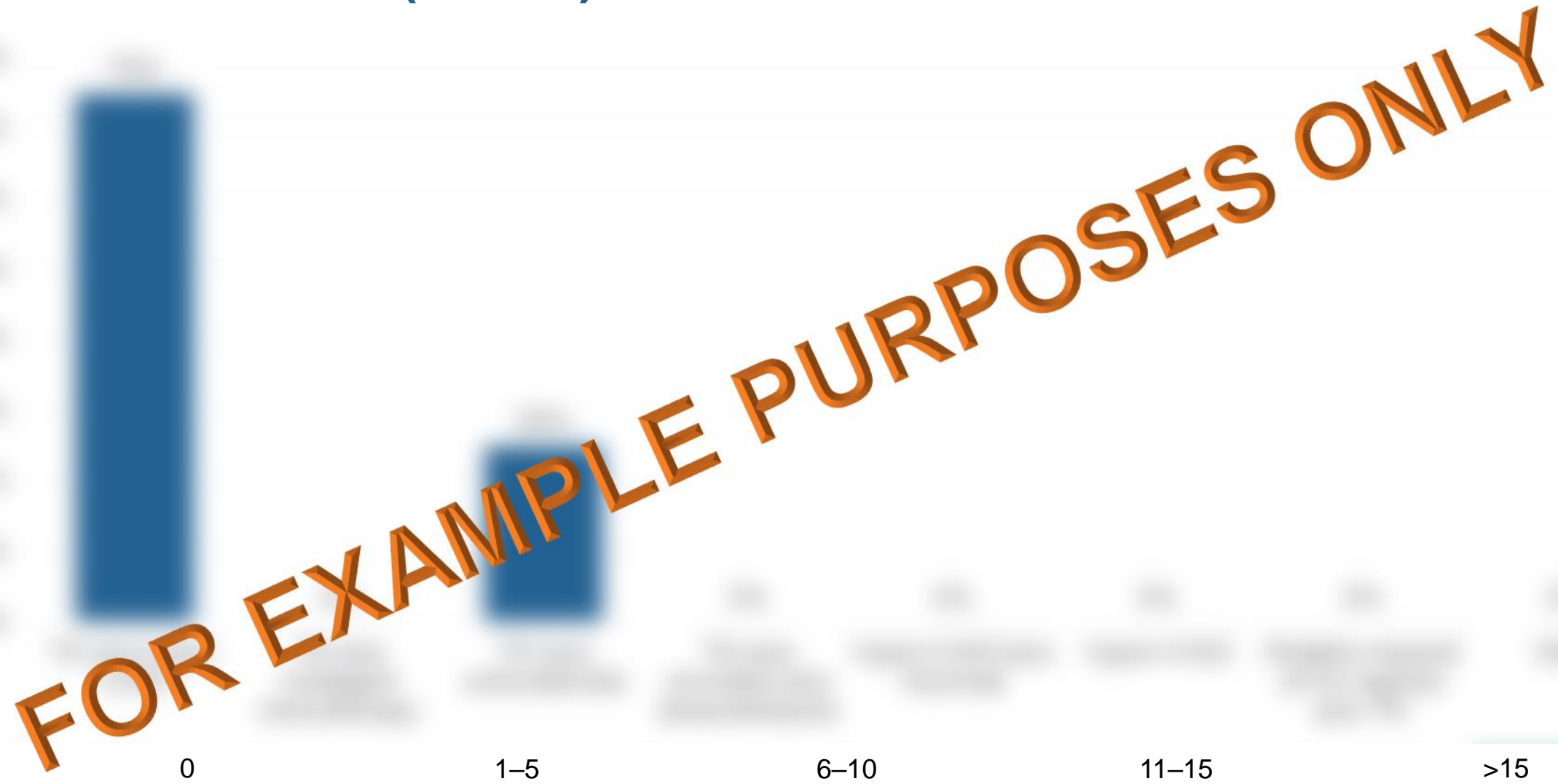
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH CRIZOTINIB? (N = 11)

CASES



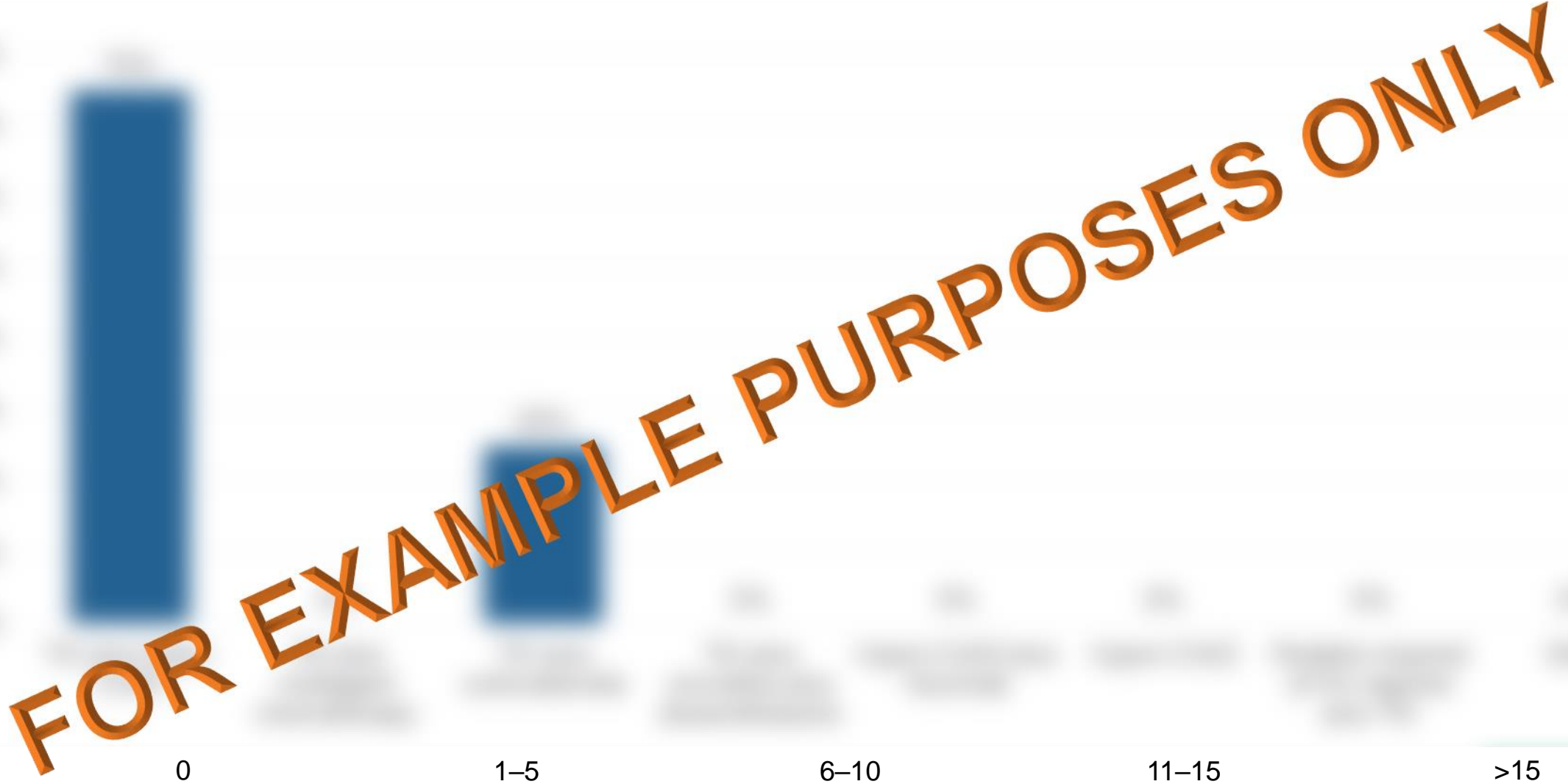
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH CERITINIB? (N = 10)

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# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH BRIGATINIB? (N = 10)

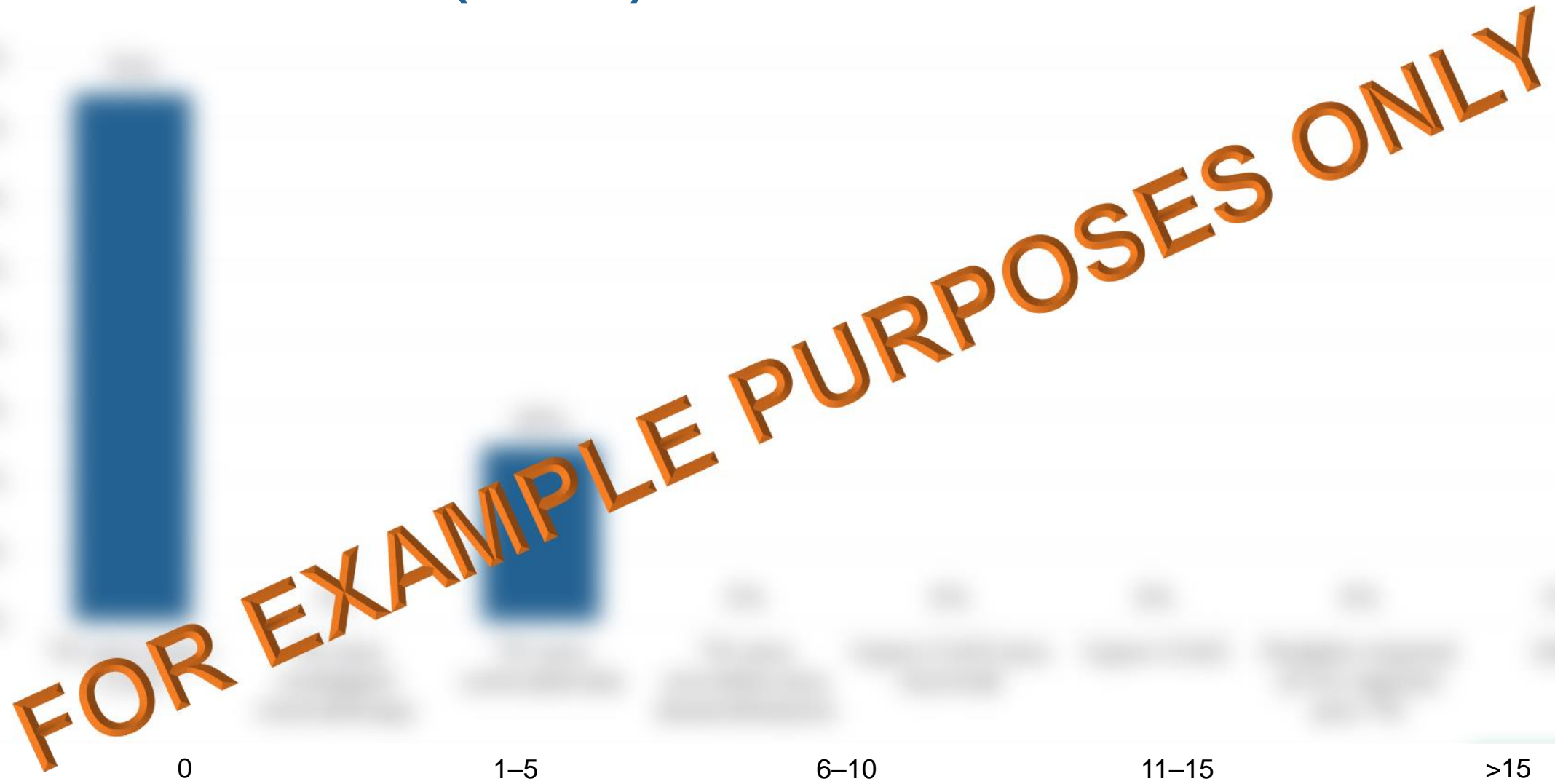
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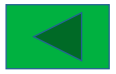
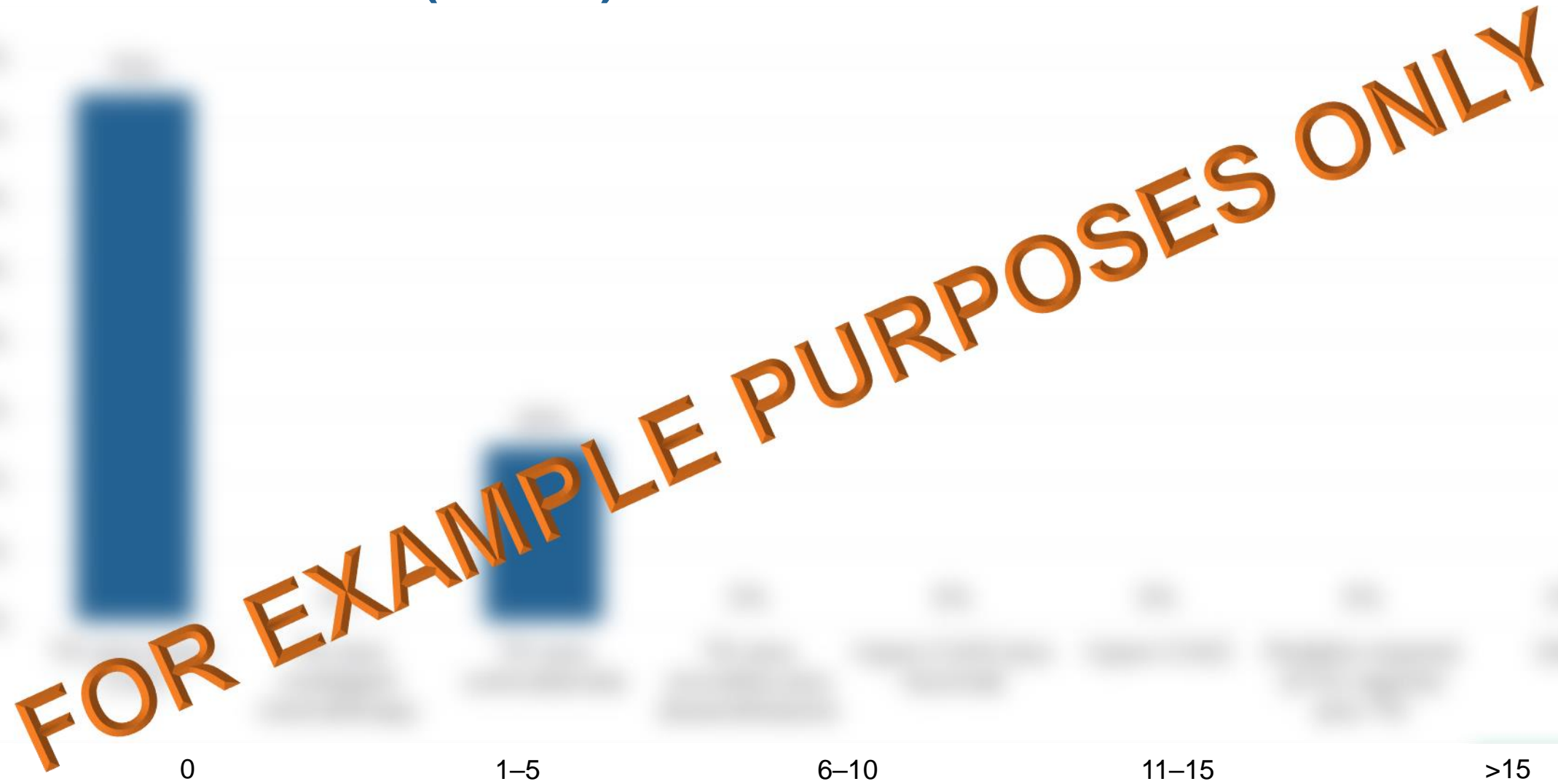
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH LORLATINIB? (N = 10)

CASES



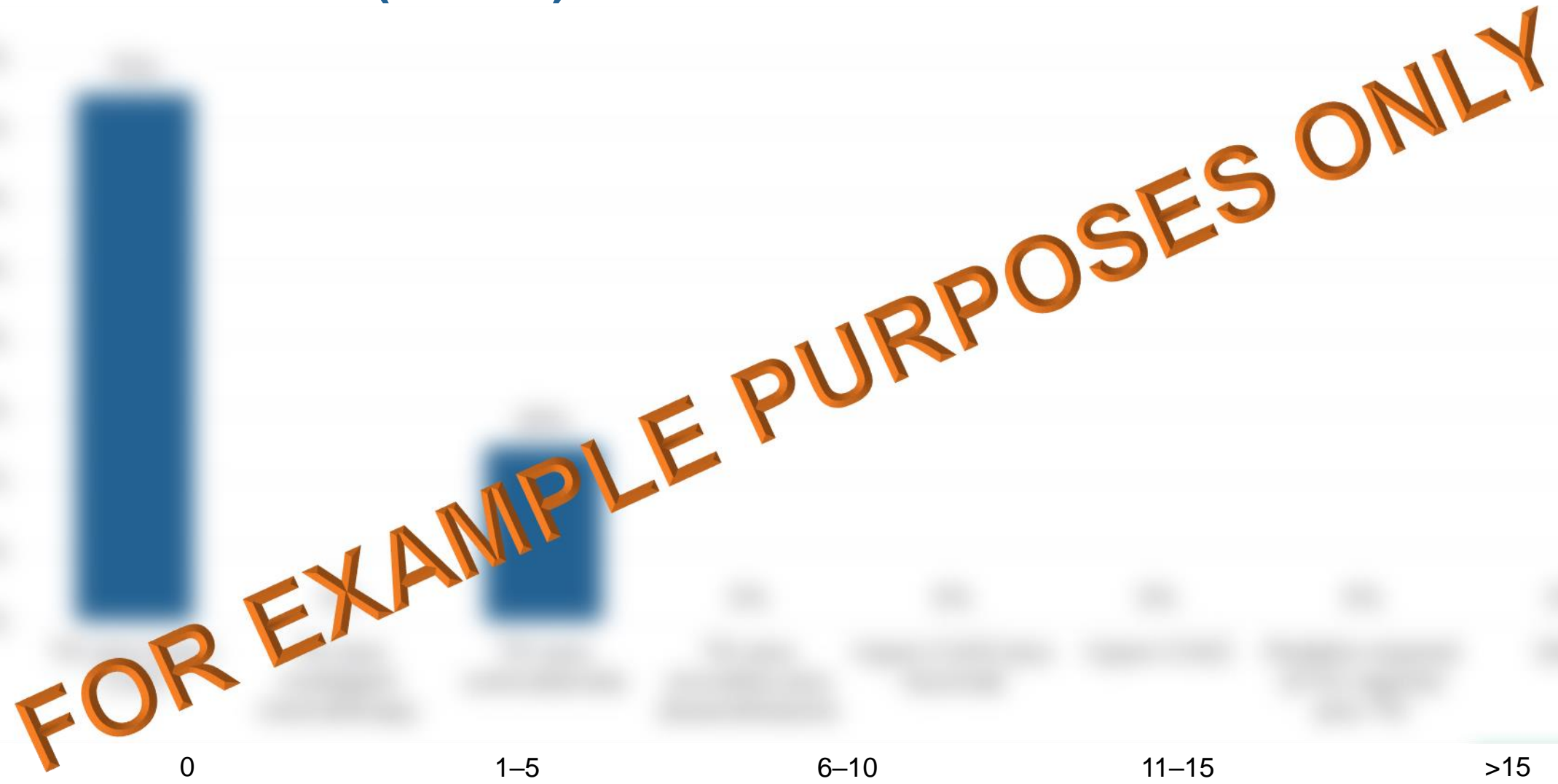
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH ERLOTINIB? (N = 10)

CASES



# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH AFATINIB? (N = 10)

CASES



# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH GEFITINIB? (N = 10)

CASES



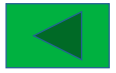
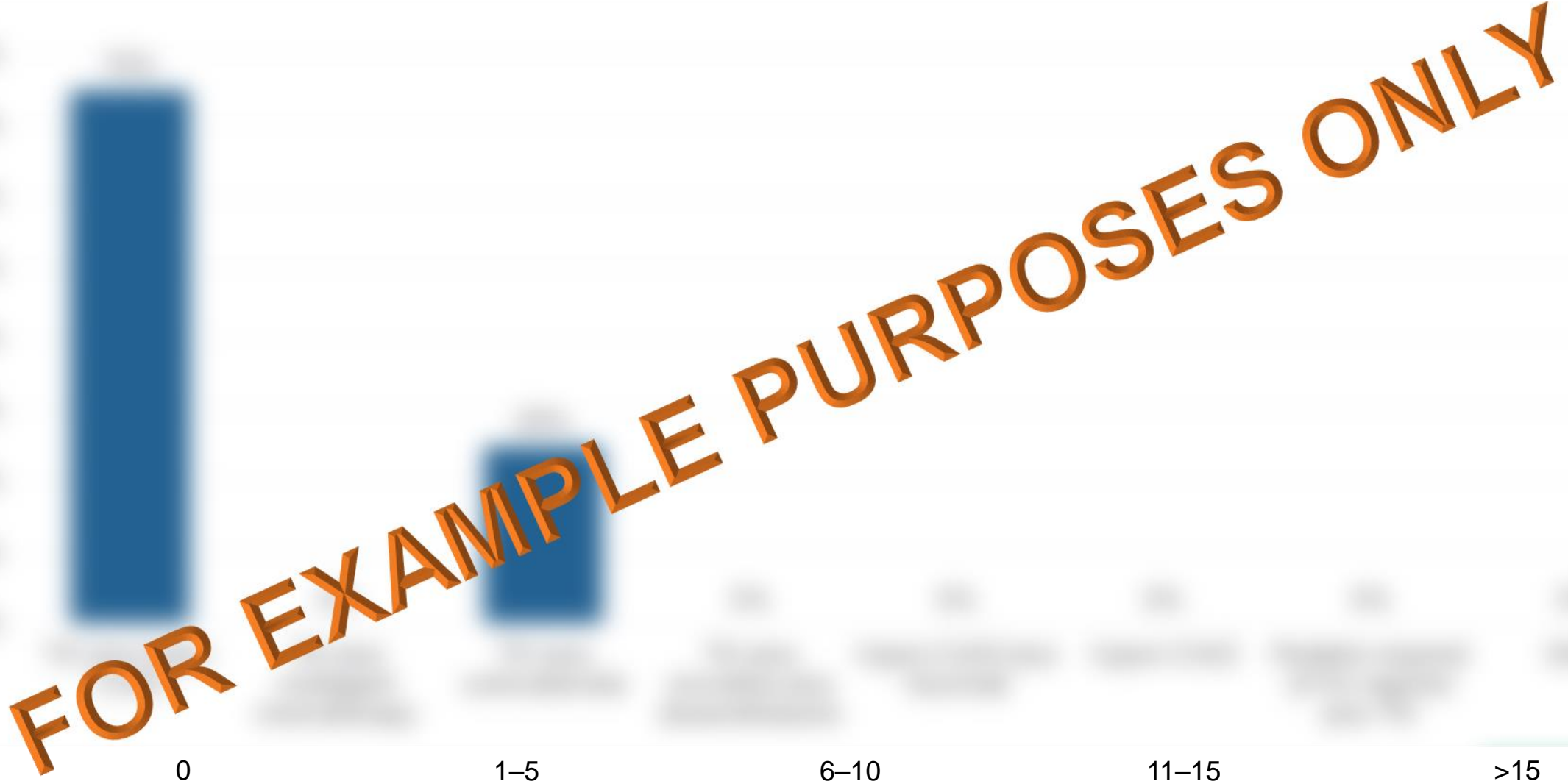
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH OSIMERTINIB? (N = 11)

CASES



# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH DACOMITINIB? (N = 10)

CASES



 CASES A large, stylized logo consisting of several thick, dark brown curved lines arranged in a circular pattern, resembling a sunburst or a stylized 'A' shape.

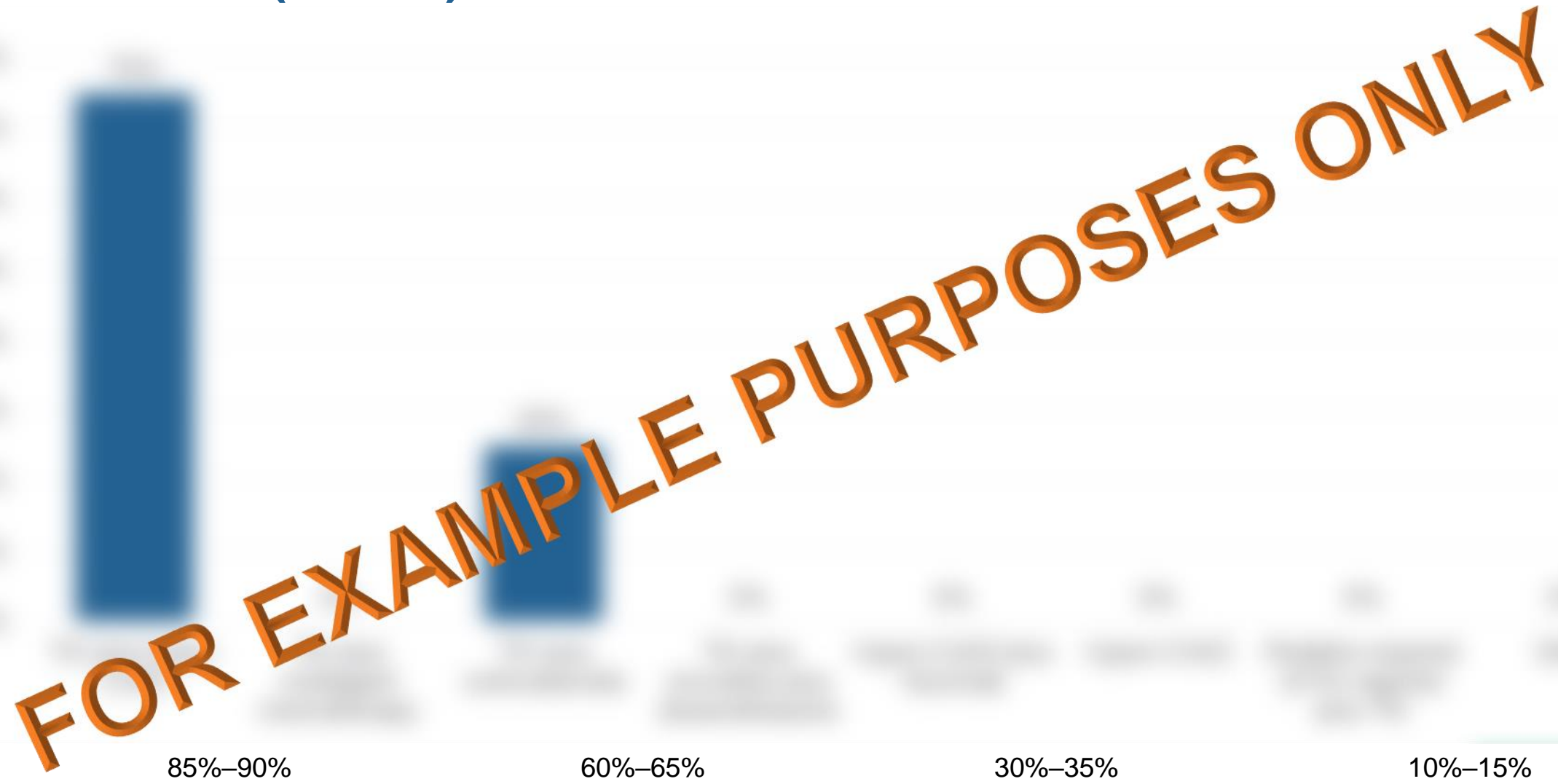
ARS Data – Treatment of  
*EGFR* Mutation-, *ALK*  
Mutation-, and *NTRK* Fusion-  
Positive NSCLC

- > A 49-year-old Asian-American female never-smoker presents with dyspnea on

[The following text is heavily blurred and illegible.]



# WHAT IS THE CHANCE THIS PATIENT WILL HAVE AN *EGFR* MUTATION? (N = 11)



THE PATIENT'S TUMOR RETURNS POSITIVE FOR EXON 19 MUTATION. WHICH OF THE FOLLOWING AGENTS WOULD YOU PREFER FOR FRONTLINE TREATMENT OF *EGFR*-MUTATED NSCLC? (N = 11)



> A 60-year-old woman presents with a persistent cough and is found on CXR to

[The following text is heavily blurred and illegible.]

# YOUR CHOICE OF *EGFR* TKI IN THIS PATIENT WOULD BE: (N = 11)



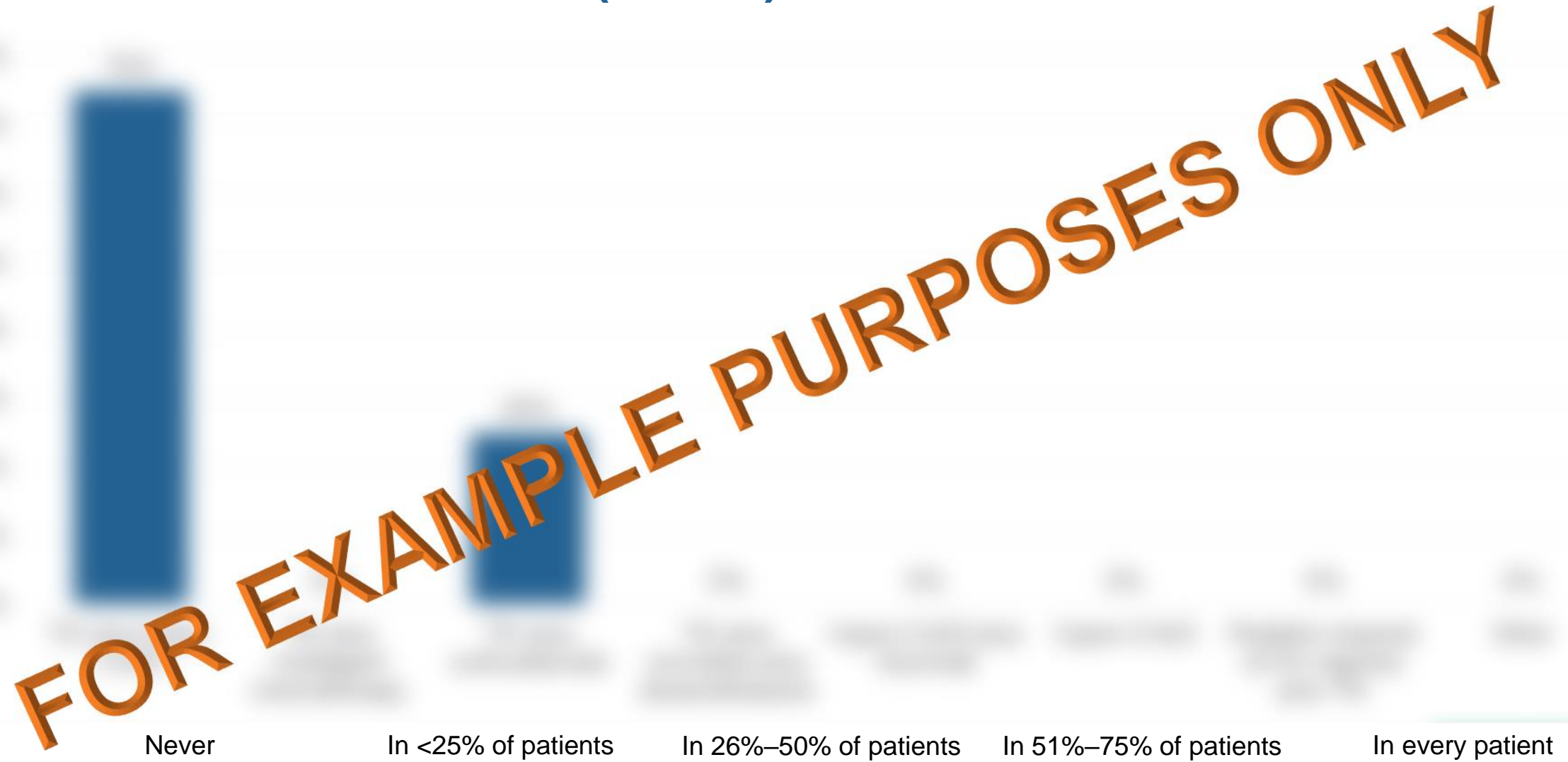
THE PATIENT IS TREATED WITH ERLOTINIB AND HAS A RESPONSE LASTING 18 MONTHS. SHE IS RETESTED AT THAT TIME AND HAS THE *T790M* MUTATION, AND IS TREATED WITH OSIMERTINIB. SHE HAS A RESPONSE THAT LASTS 12 MONTHS BUT NOW HAS DISEASE PROGRESSION AT MULTIPLE SITES.

FOR EXAMPLE PURPOSES ONLY

**CASES**

**ARS Data – First-Line  
Treatment of Pan–Wild-Type  
Squamous and Non-  
Squamous NSCLC**

# HOW OFTEN HAVE YOU ORDERED PD-L1 TESTING FOR YOUR NSCLC PATIENTS? (N = 11)



# APPROXIMATELY HOW MANY PATIENTS WITH PD-L1+ NSCLC HAVE YOU SEEN IN THE LAST YEAR? (N = 10)

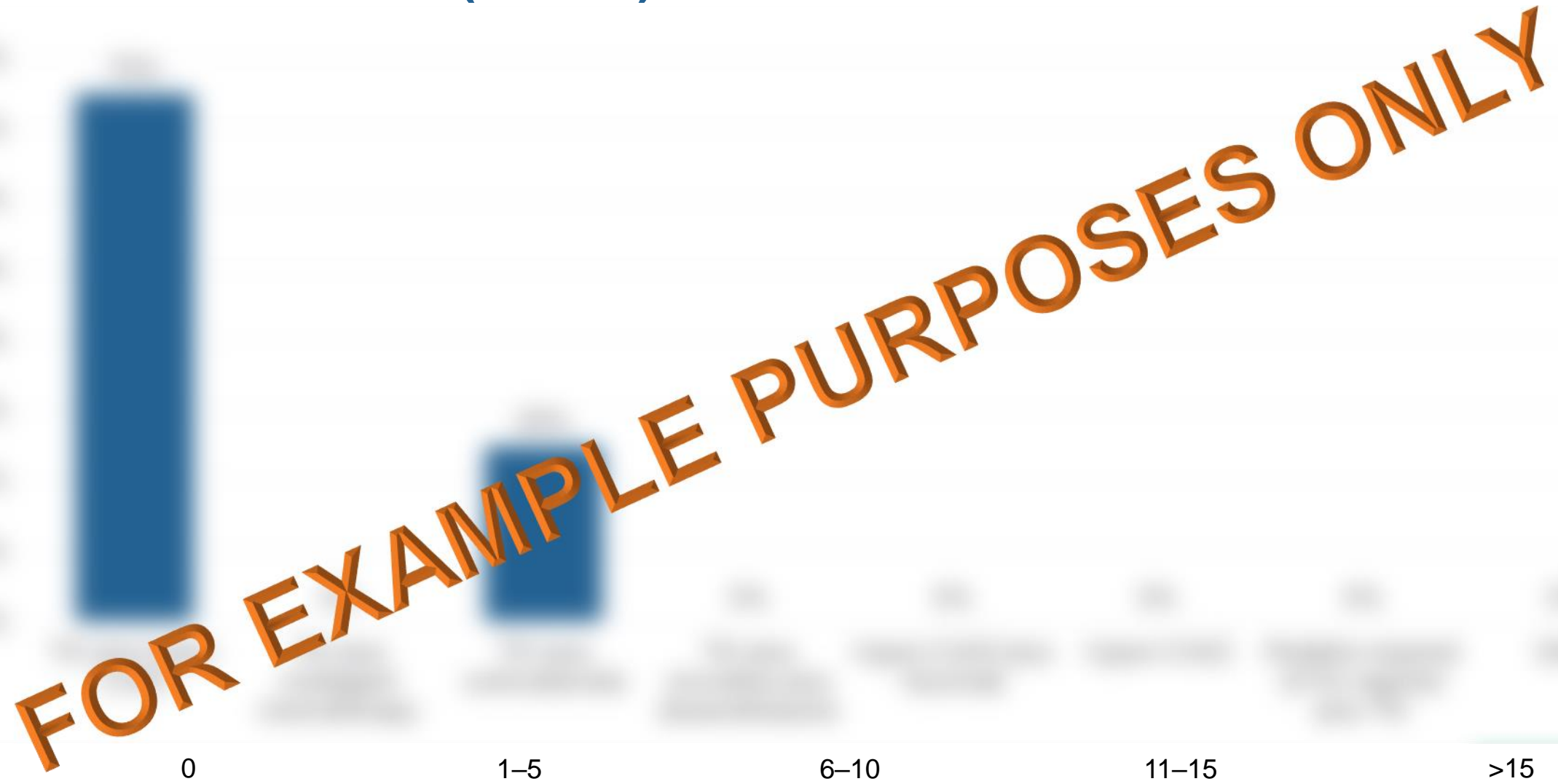
CASES





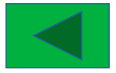
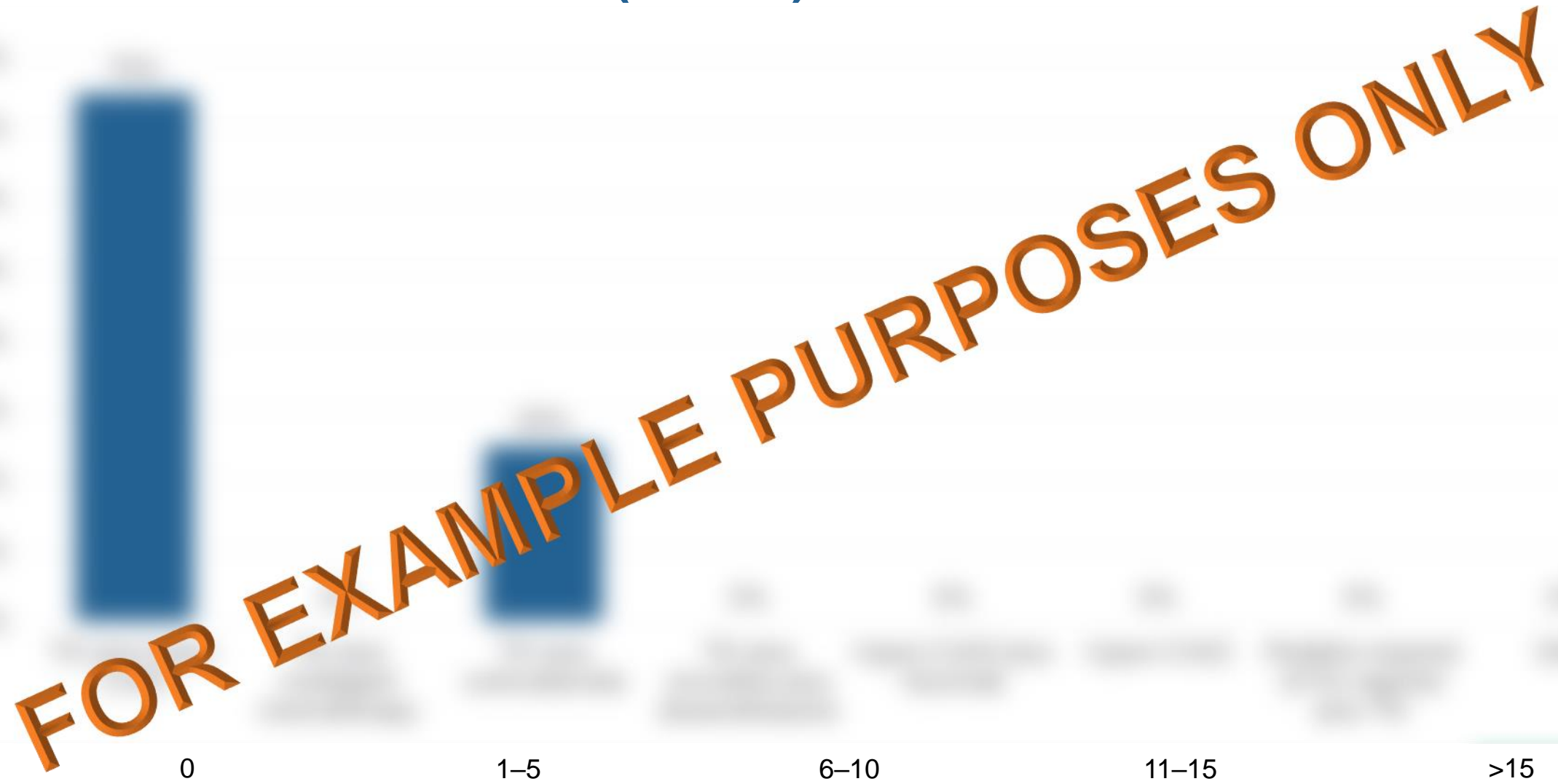
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH NIVOLUMAB? (N = 10)

CASES



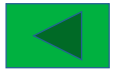
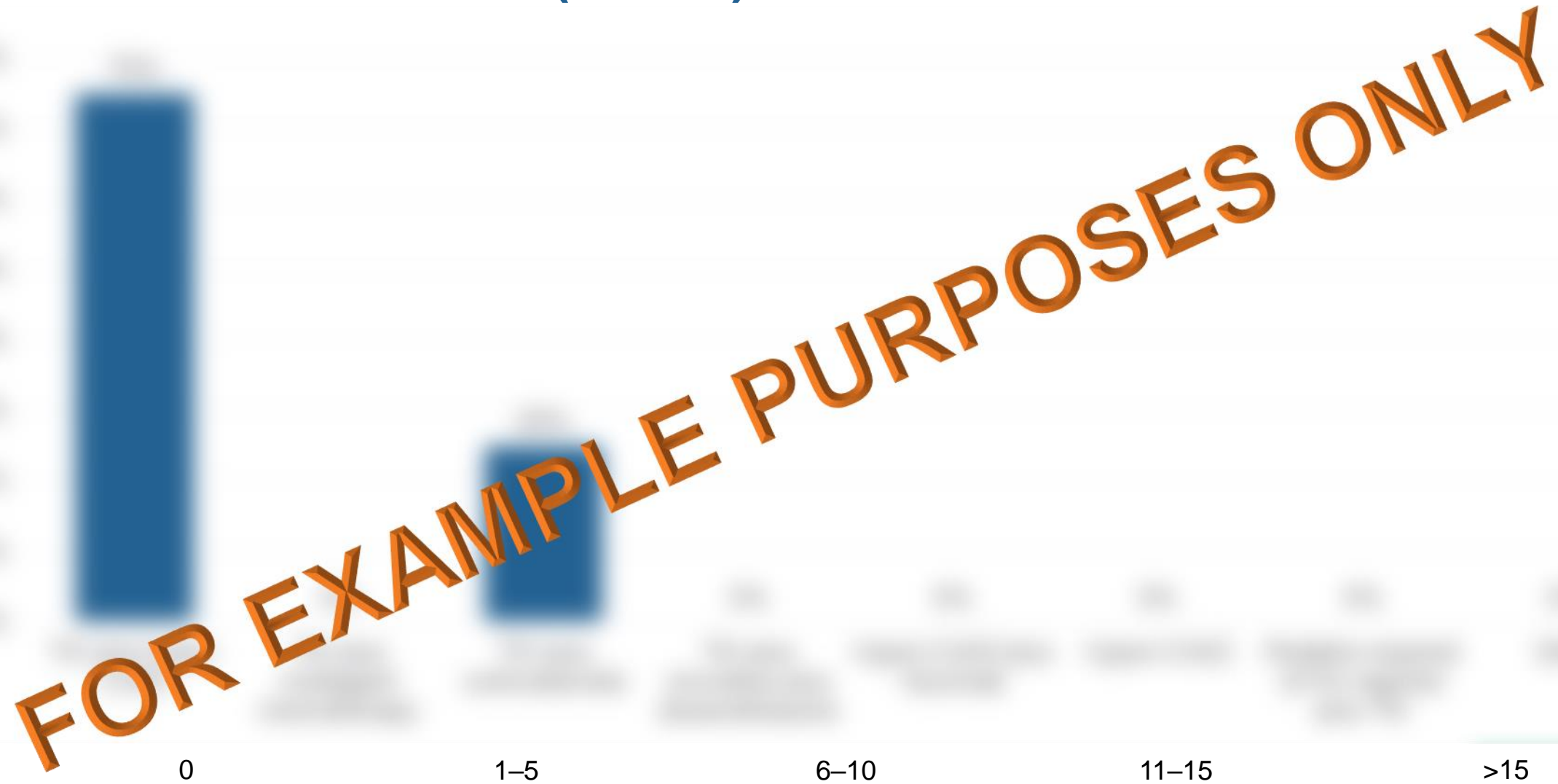
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH PEMBROLIZUMAB? (N = 10)

CASES



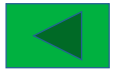
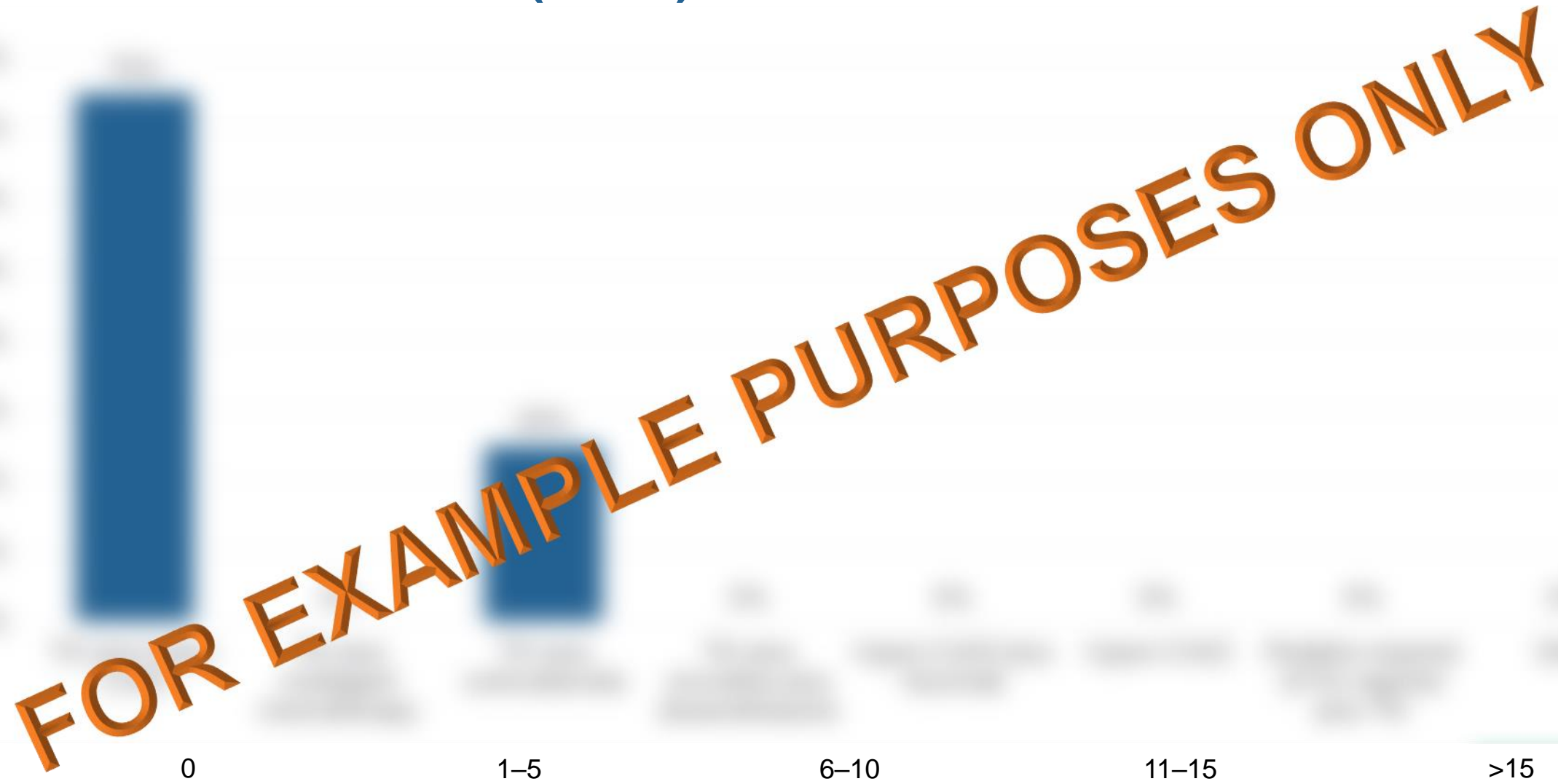
# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH ATEZOLIZUMAB? (N = 10)

CASES



# HOW MANY PATIENTS WITH NSCLC HAVE YOU TREATED WITH BEVACIZUMAB? (N = 9)

CASES



- > A 65-year-old WF with 40 pk-yr smoking hx presents with cough and DOE. CXR

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# WHICH OF THE FOLLOWING WOULD YOU CONSIDER IN THIS PATIENT? (N = 10)

FOR EXAMPLE PURPOSES ONLY

bevacizumab

pembrolizumab

bevacizumab

bevacizumab-  
atezolizumab

PATIENT DOES WELL ON INITIAL CHEMOTHERAPY (PEM-CARBO-BEV). SX RESOLVE; PLEURAL EFFUSION DRIES UP. THE R HILAR MASS SHRINKS TO 1.5 CM AND THE R PARATRACHEAL NODES DECREASE SUBSTANTIALY. THERE ARE NO NEW SITES OF CANCER. AFTER 6 CYCLES OF CHEMO, PATIENT IS ASKED TO CONSIDER MAINTENANCE THERAPY.

WHICH OF THE FOLLOWING WOULD BE YOUR NEXT APPROACH? (N = 9)



- > A 75-year-old male former smoker (1–1.5 ppd × 20 yr; quit 1980) initially presented

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[Blurred text block]



# WHAT WOULD YOU DO NEXT? (N = 8)

FOR EXAMPLE PURPOSES ONLY

Wait for testing to return

Empirically start treatment

OVER THE PROCEEDING 2–3 WEEKS, PAIN IMPROVED BUT DID NOT RESOLVE. HE NOTED EPISTAXIS AFTER DENOSUMAB, WHICH SPONTANEOUSLY RESOLVED. APPETITE REMAINED INTACT. THERE WERE NO SEQUELAE POST-SRS. PD-L1 TESTING RETURNED (+) AT 80%. ALL MOLECULAR MARKERS, INCLUDING *ALK*, *EGFR*, *ROS1*, ETC WERE (–).

HOW WOULD YOU TREAT THIS PATIENT NOW? (N = 10)

FOR EXAMPLE PURPOSES ONLY

atezolizumab



- > A 75-year-old AAM with 80 pk-yr smoking hx presents with chest and RUQ pain.

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# WHICH OF THE FOLLOWING REGIMENS IS INAPPROPRIATE FOR THIS PATIENT? (N = 9)

FOR EXAMPLE PURPOSES ONLY

bevacizumab

necitumumab



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ARS Data – Current  
Treatment of Progressive  
Disease

# FOR A SECOND-LINE NSCLC PATIENT WITH *EGFR* MUTATION TREATED WITH TKI, I GENERALLY (CHECK ALL THAT APPLY) (A = 16)

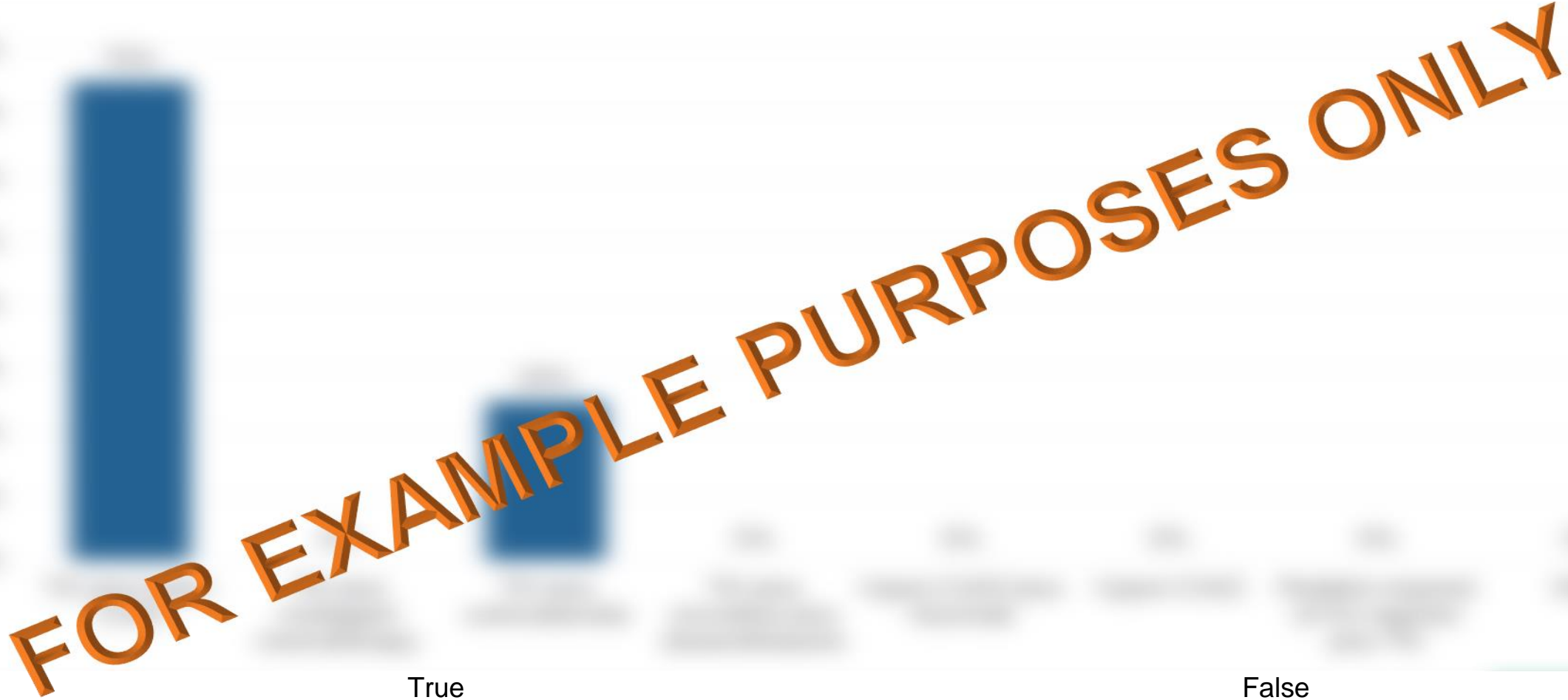


FOR A SECOND-LINE NSCLC PATIENT, I GENERALLY HAVE INFORMATION ON THE FOLLOWING (CHECK ALL THAT APPLY) (A = 63)

FOR EXAMPLE PURPOSES ONLY

Genetic Alteration	Frequency
status	High
rearrangement	Low
rearrangement	Low
rearrangement	Low
fusion	Low
status	Low

THE OVERALL SURVIVAL ADVANTAGE SEEN WITH ATEZOLIZUMAB COMPARED WITH DOCETAXEL IN THE OAK TRIAL WAS ONLY IN PATIENTS TESTING POSITIVE FOR PD-L1 EXPRESSION (N = 9)





- > A 68-year-old male former smoker (40 pack-years) is diagnosed with stage IV

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# WHICH OF THE FOLLOWING IS YOUR MOST LIKELY COURSE OF ACTION? (N = 10)

FOR EXAMPLE PURPOSES ONLY

Biopsy result positive, begin treatment with nivolumab

Biopsy result positive, begin treatment with pembrolizumab

- > A 72-year-old male is diagnosed with stage IV squamous carcinoma and receives

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# YOU WOULD NOW RECOMMEND (N = 10)

FOR EXAMPLE PURPOSES ONLY

ramucirumab