

Your Outputs Deserve a Second Set of Eyes:

Meet ELARA

Company: STATECS

Presenter: Mane Sargsyan

Agenda

- ≡ Introduction
- ≡ System Overview
- ≡ Output-to-Output Comparison
- ≡ Overlay View
- ≡ Three-Panel View
- ≡ Shell-to-Output Comparison
- ≡ Results & Outputs
- ≡ Benefits & Impact
- ≡ Conclusion

Introduction

Key pain points observed in daily clinical report validation workflows.

01 Manual and Repetitive Checks

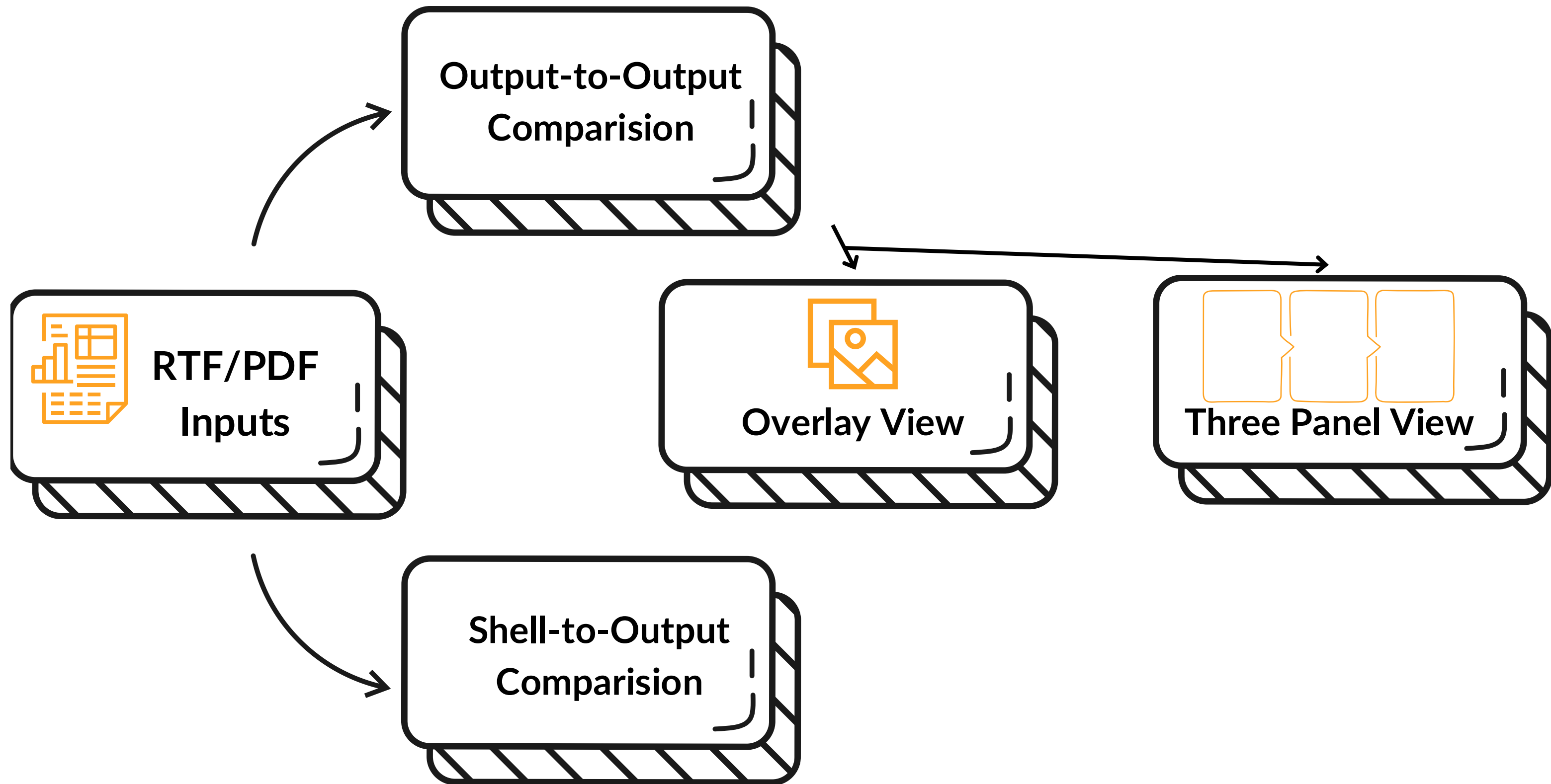
02 Inconsistency Between Runs

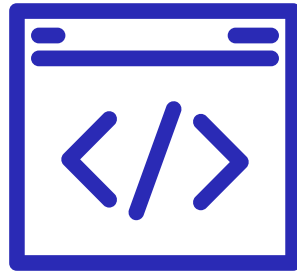
03 No standardized automation





System Overview





Output-to-Output Comparison

```
elara_validation(  
    mode = "OTO",  
    view = "threepanel",  
    ref_path = "Figure1.rtf",  
    new_path = "Figure2.rtf",  
    ref_png_dir = "png/ref",  
    new_png_dir = "png/new",  
    out_text_csv = "results2/elara_text_report.csv",  
    diff_dir = "results2/diff_images",  
    dpi = 300,  
    prefix = "page",  
    overwrite_pngs = TRUE,  
    lang = "eng",  
    line_spacing = 2.0,  
    title_max_y_frac = 0.058,  
    foot_min_y_frac = 0.90  
)
```

- Specifies Output-to-Output comparison mode.
- Defines the output format;
- Path to the reference file
- Path to the new report being compared
- Folders where per-page PNGs are saved for ref file
- Folders where per-page PNGs are saved for new file
- Exports a structured CSV of text mismatches
- Directory for storing generated difference images
- Image resolution (dots per inch)
- Naming prefix for PNG files (e.g., page_001.png)
- Recreates PNGs on rerun, ensuring fresh results.
- OCR language for text recognition
- Controls how closely text lines must appear
- Marks where the title region ends
- Marks the starting point of the footnote area



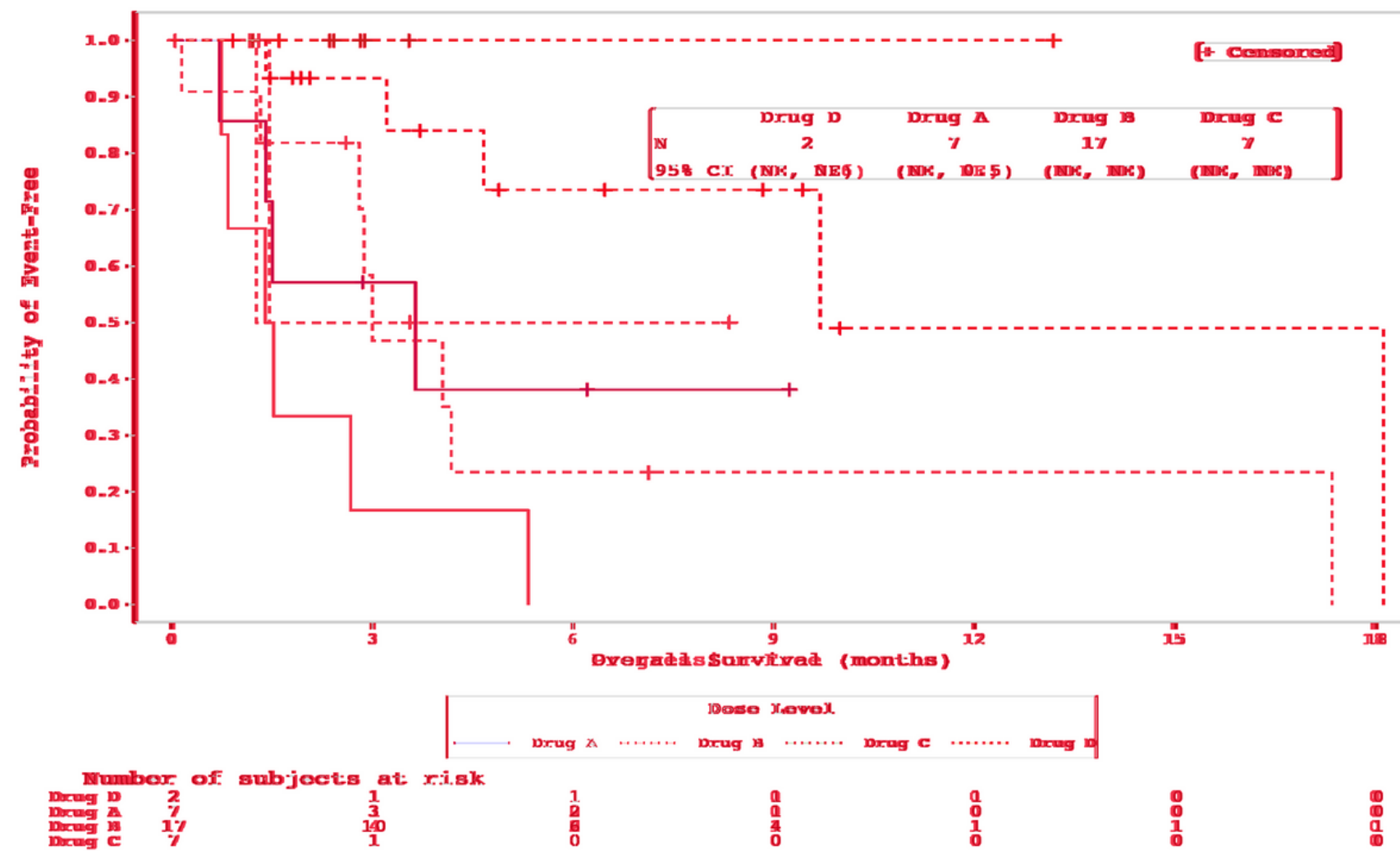
Overlay View

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Figure 2.2
Kaplan-Meier Plot of Progression-Free Survival (PFS) (PRECISE Criteria)
mITT Set

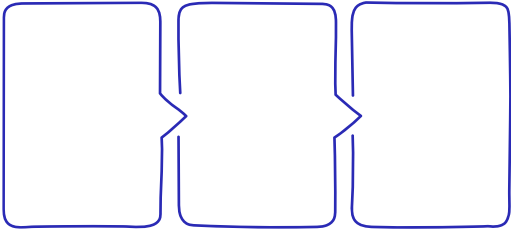
Trial Phase: PART 1



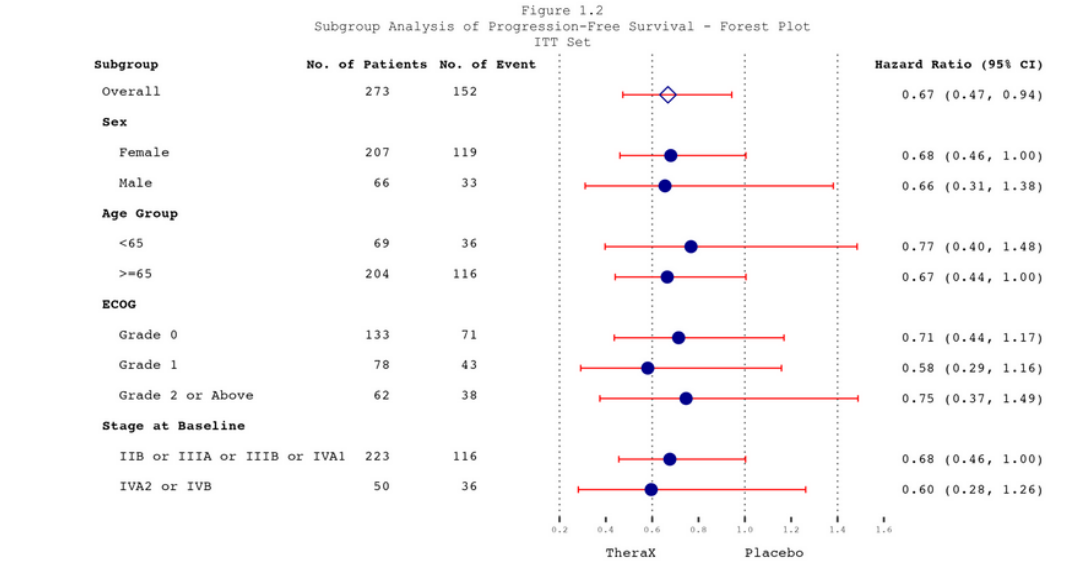
Cross Reference: Table 21

Abbreviations: CI = confidence interval; NE = not estimable.

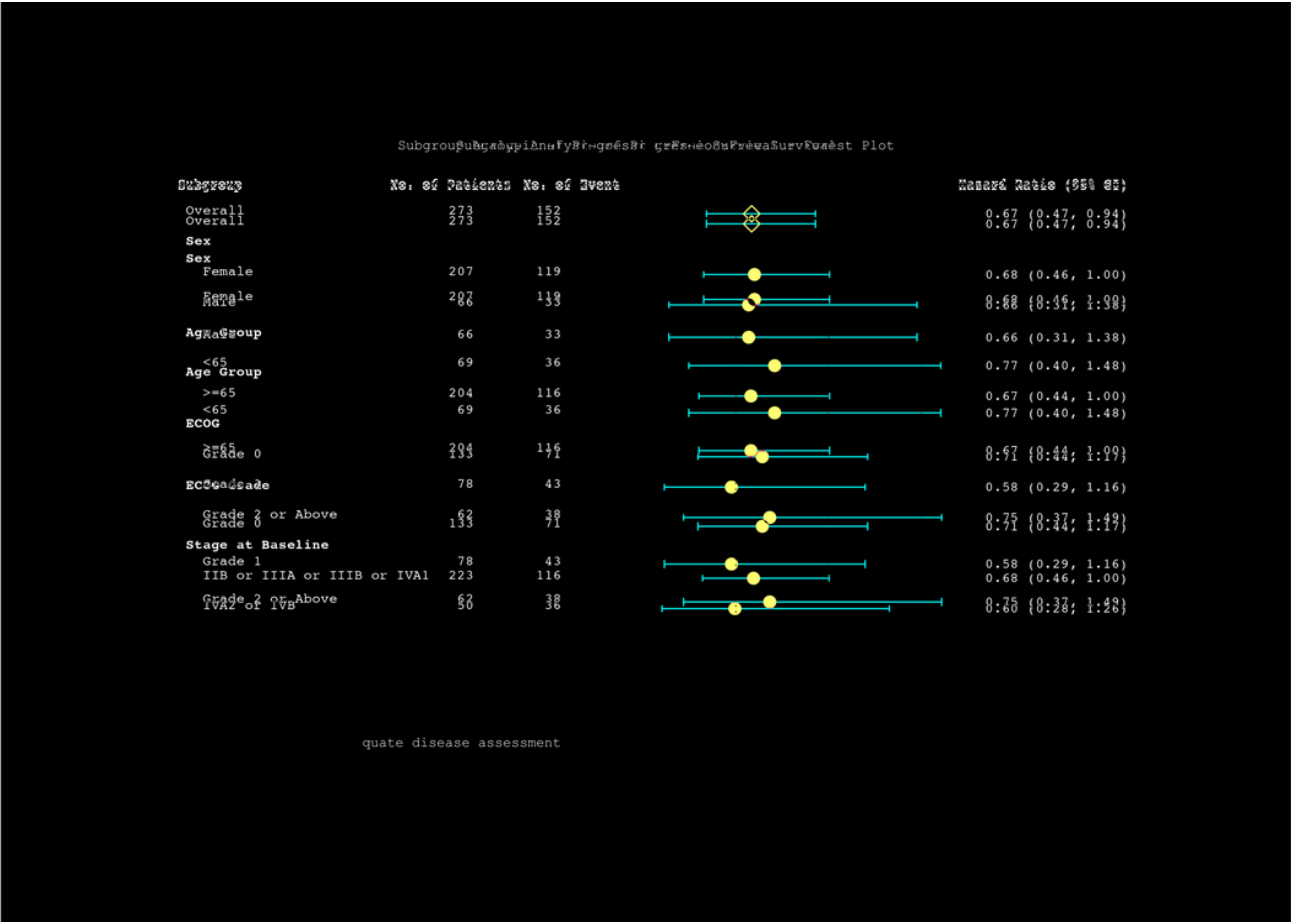
DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)
median survival with 95% CI derived using Greenwood's formula.



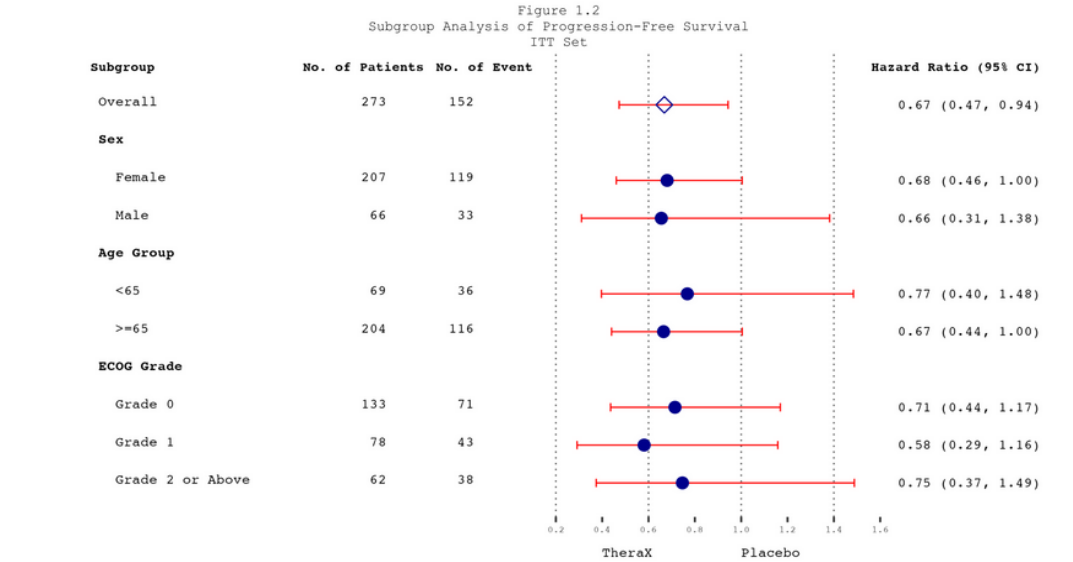
Three-Panel View



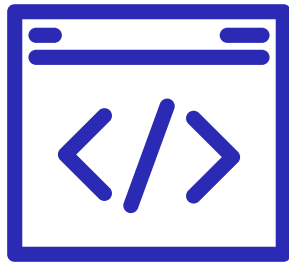
Hazard ratios and 95% CIs were estimated using Cox proportional hazards models with treatment as the only covariate.
Interaction p-values are from treatment-by-subgroup terms. HR <1 favors Experimental.
Censoring was applied at last adequate disease assessment



quate disease assessment



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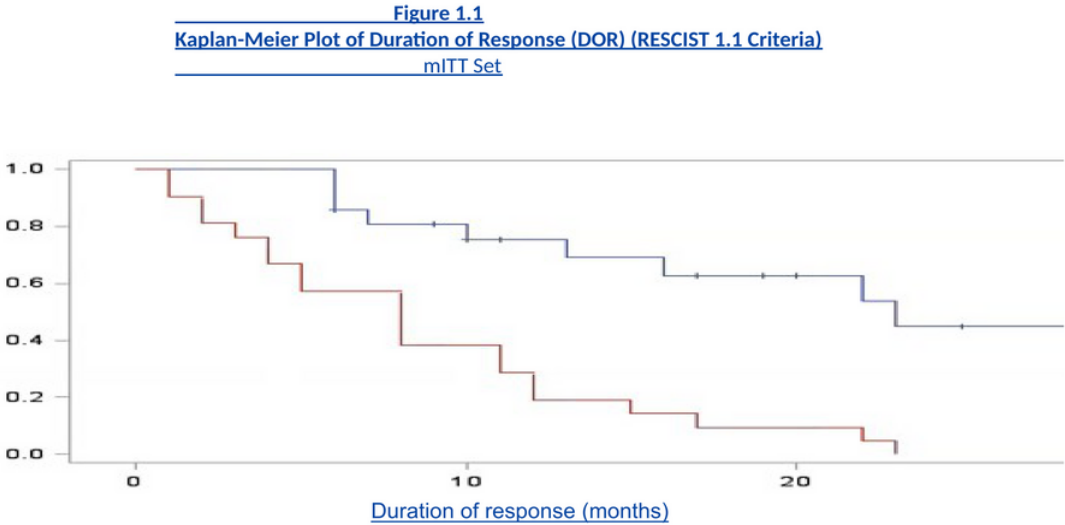


Shell-to-Output Comparison

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Trial Phase: Part 1

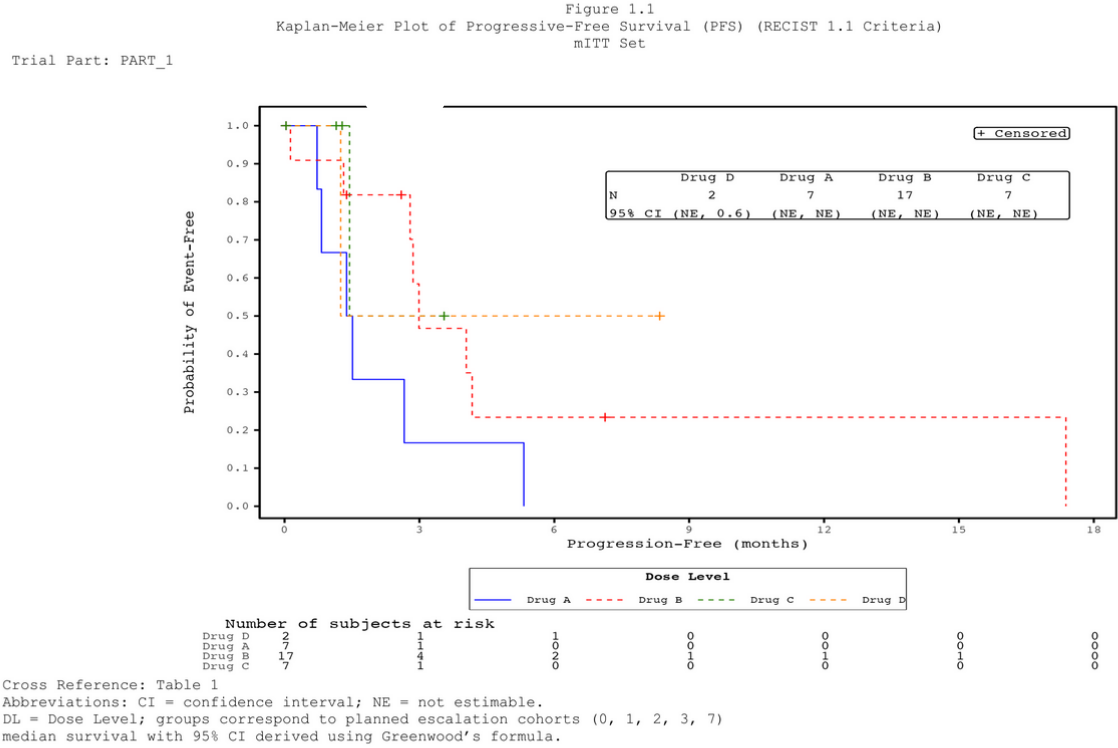


Cross Reference: Table 1
Abbreviations: CI = confidence interval; NE = not estimable.
DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)
median survival with 95% CI derived using Greenwood's formula.

Mock Shell Page

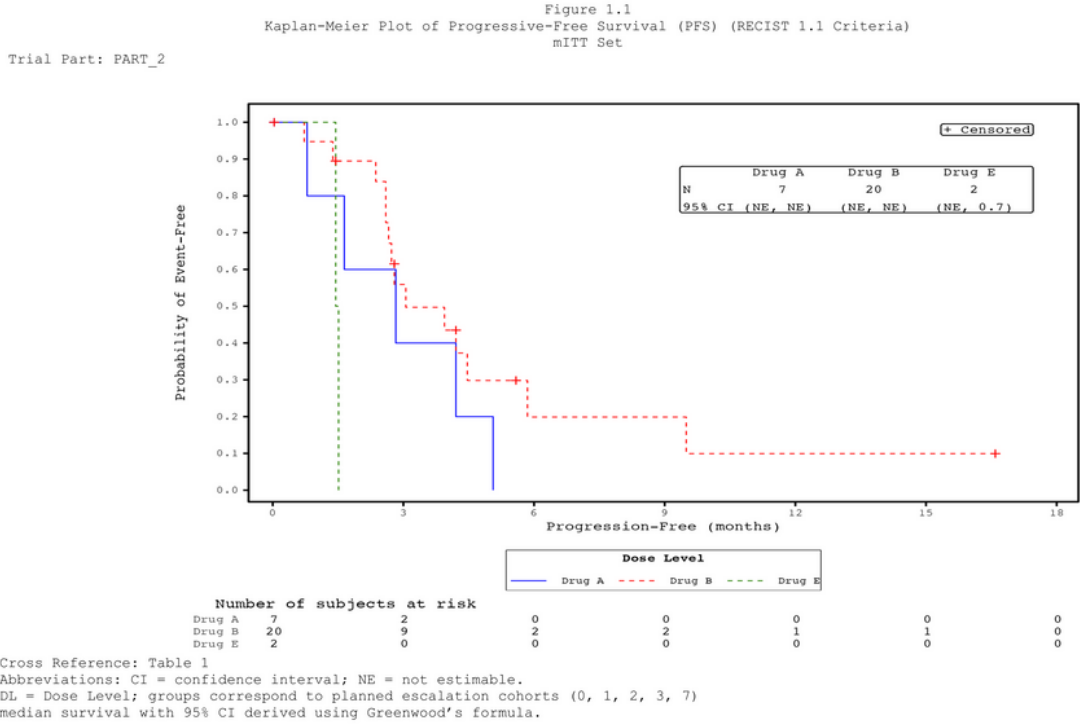
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Results & Outputs

shell_combined_vs_all_fig_pages

FigurePage	Section	Line	Text_shell	Text_figure	Mismatch(Y/N)
1	TITLE_LINES	1	STATECS LLC . Page X/Y	STATECS LLC Page 1 of 2	Y
1	TITLE_LINES	2	Protocol: Study XX Confidential	Protocol: Study XX Confidential	N
1	TITLE_LINES	3	Figure 1.1	Figure 1.1	N
1	TITLE_LINES	4	Kaplan-Meier Plot of Duration of Response (DOR) (RESCIST 1.1 Criteria)	Kaplan-Meier Plot of Progressive-Free Survival (PFS) (RECIST 1.1 Criteria)	Y
1	TITLE_LINES	5	mITT Set	mITT Set	N
1	TITLE_LINES	6	Trial Phase: Part 1	Trial Part: PART 1	Y
1	FOOTNOTE	1	Cross Reference: Table 1	Cross Reference: Table 1	N
1	FOOTNOTE	2	Abbreviations: CI = confidence interval; NE = not estimable.	Abbreviations: CI = confidence interval; NE = not estimable.	N
1	FOOTNOTE	3	DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)	DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)	N
1	FOOTNOTE	4	median survival with 95% CI derived using Greenwood's formula.	median survival with 95% CI derived using Greenwood's formula.	N
2	TITLE_LINES	1	STATECS LLC . Page X/Y	STATECS LLC Page 2 of 2	Y
2	TITLE_LINES	2	Protocol: Study XX Confidential	Protocol: Study XX Confidential	N
2	TITLE_LINES	3	Figure 1.1	Figure 1.1	N
2	TITLE_LINES	4	Kaplan-Meier Plot of Duration of Response (DOR) (RESCIST 1.1 Criteria)	Kaplan-Meier Plot of Progressive-Free Survival (PFS) (RECIST 1.1 Criteria)	Y
2	TITLE_LINES	5	mITT Set	mITT Set	N
2	TITLE_LINES	6	Trial Phase: Part 1	Trial Part: PART 2	Y
2	FOOTNOTE	1	Cross Reference: Table 1	Cross Reference: Table 1	Y
2	FOOTNOTE	2	Abbreviations: CI = confidence interval; NE = not estimable.	Abbreviations: CI = confidence interval; NE = not estimable.	Y
2	FOOTNOTE	3	DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)	DL = Dose Level; groups correspond to planned escalation cohorts (0, 1, 2, 3, 7)	Y
2	FOOTNOTE	4	median survival with 95% CI derived using Greenwood's formula.	median survival with 95% CI derived using Greenwood's formula.	Y

Benefits & Impact

01

Reduced Review Time

Automates page-by-page checks, eliminating the need for manual scanning of long reports.



02

Reviewer-Friendly

Designed with simplicity in mind, can be used by both programmers and non-programmers with minimal setup.



03

Proven in Practice

Successfully tested and implemented across multiple clinical projects, improving validation speed and traceability.



Conclusion



ELARA bridges the gap between visual and textual validation by automating what was once a manual, repetitive task.



It empowers teams to review outputs faster, more consistently, and with higher confidence in data presentation.



Beyond developers, reviewers and quality specialists can use ELARA effortlessly — its single-function workflow and structured outputs make it accessible to all team members.



Thank You!

Let's keep in touch!



Mane Sargsyan

Senior Statistical Programmer