

surv: Name heart attack

AA 9/12 → 4.5/6

1. Formatting:

0.75/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

- 'Infarction' (not 'Infraction')

brief statement of scientific question

what is 'basic survival analysis'

all variables defined

3. EDA:

1.25/2

univariate numerical

bivariate numerical (cor)

univariate graphical

hist

bivariate graphical

4. Model fitting:

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

(explicitly)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

in results but  $\beta$  SE (not variance)

define all terms

no / h / s spell out HR (first time) /  $\beta_i$ 's

5. Model assessment:

CLEARLY state Cox PH assumptions:

1.5/2

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

carefully interpret

5.75/2.75

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75 / 0.75

7. Plots: + some plots too small/illegible

label size (not too small)

captions

placement

**NOT BLURRY**

0.5

8. Conclusions

+EDA / KM  
recap analysis

validity not 'confirmed'  
state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- Don't need cover page, contents

)) )) -> " ))

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3.25 / 4.25

surv: Name

J Bat

5.5/12 → 2.75/6

kidney

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

0.5/0.75

0.75/1

1/2 very incomplete

0.5/2 mathematically

0.75/2

3.5

incomplete

patient/time plot? not explained or interpreted

- too many digits be specific

(square pairs) pairs plots (not 'correlation') side by side box plots surv time by levels of categorical

'patient' a term??

some seem to be missing?

0.25/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coeffs in table)

**max 2 sig digits** on coeffs

0.5/0.75

7. Plots:

label size (not too small)

Each fig needs number and caption

placement

too much blank space (incomplete)

captions

**NOT BLURRY**

0.5/1

8. Conclusions

recap analysis

(\* interpretation state main findings)

0.75/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- cite primary refs

- in dataset ref, also include date referenced

- use paragraphs

- Cox (not cox) - it's a name

(\* cannot conclude causation, only association)

- make 'pretty' tables (not in R)

2/4.25

surv: Name

N Bel

8.75/12 → 4.375/6

PBC

1. Formatting:

0.75/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

0.75/1/1

① Context

brief statement of scientific question

all variables defined

② →  
③ Describe data

3. EDA:

1.5/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

other vars

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

mathematically

First write Cox model mathematically don't need R fn state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

- Do you re-fit after variable selection?

define all terms

Cox not cox h/h0/β's / concordance [it's not it's]

5. Model assessment:

1.25/2

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

interpret plot

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

Table 4 too small

Be more specific

5.25/7.75

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coeffs in table)

max 2 sig digits on coeffs

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

8. Conclusions

(+EDA)  
recap analysis

\*interpretation  
state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- use primary refs

\*cannot conclude causation, only association

3.5 / 4.25

surv: Name

E Bill

8.5/12 → 4.25/6

Channing

1. Formatting:

0.75/1

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

0.75/1

brief statement of scientific question

explicitly

all variables defined

3. EDA:

1.75/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

hist not box

square

4. Model fitting:

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

→ why intercept in Cox model, if can go into  $h_0$

CLEARLY describe how model selected

maximizes the partial like (the part ignoring  $h_0$ )

define all terms

$h / \beta$ 's

5. Model assessment:

assumption satisfied (not validated)

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

plots too small

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

why compare to 0?

\* It doesn't make sense to include death in a model - that's why you are trying to predict. Similarly, age doesn't make sense either

6/7.75

→ use a reasonable model (but ok given error)

0.25/1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75/1.25

7. Plots:

+ plots too small

label size (not too small)

captions

placement

**NOT BLURRY**

0.5/1

8. Conclusions

use paragraphs

recap analysis

redo when you take over death/age  
state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory / good

excellent

10. Other comments:

Figure not Fig.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.5/4.25



surv: Name

blalock

1. Formatting:

CBil

+1.25 MC

9.5

12 → 4.875/6

0 / 0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

- 'more accurate' ??

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

be very good

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

1.5/2

1.5/2

2/2

6 / 7.75

0.25/1

6. Write out final estimated model  
hat on response variable  
(ok if coefs in table)

**mathematically** explicitly  
max 2 sig digits on coefs

1.25/1.25

7. Plots:

label size (not too small)  
placement

captions  
**NOT BLURRY**

1/1

8. Conclusions

recap analysis

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor    satisfactory    **good**    excellent

10. Other comments:

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3.5/4.25

surv: Name

V Bol

9.5/12 → 4.75/6

PBC

1. Formatting:

0.75 / 0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

Mayo (not mayo)

brief statement of scientific question

'tried to conduct' - no, they conducted it

all variables defined

3. EDA:

excellent

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

ch/ho (β<sub>i</sub>'s / AIC / forward / backward - step criteria?)

5. Model assessment:

Don't need R fns

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

need clear interpretations, don't just state conclusions (+ correct)

1/2

5.5/7.75

1/1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

7. Plots:

1.25

label size (not too small)

(+25)  
captions

placement

**NOT BLURRY**

0.75

8. Conclusions

EDA  
recap analysis

good  
state main findings

1.25

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- cite primary refs (not class notes)

- refs incomplete

4/4.25

surv: Name

ovarian

L Bur 8.75/12 → 4,375/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

0.75/0.75

2. Introduction/Background:

brief statement of scientific question

- what is outcome?  
- be clear

all variables defined

3. EDA:

numerical: 5-number summary (table)  
categorical: freq table

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

1.5/2

4. Model fitting:

not a 'model', it's an empirical est of survival for mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

1.25/ First write your Cox model mathematically

CLEARLY describe how model selected

define all terms

h/β's

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

1.25/2

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

5.4/2.75 → interpret plots, don't just state conclusions

→ not on  $H_0$ , which is NOT estimated

0.5/1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

1.25/1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.5/1

8. Conclusions

*use paragraphing*

recap analysis

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- please use 1-column format

- cite primary refs (log rank)

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3.25/4.25

surv: Name

Kidney

ACe

9/12 → 4.5/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

use paragraphs

brief statement of scientific question

all variables defined

2 obs? clarity

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

plots too small - illegible

mathematically  
KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

no 'model selection' for KM  
state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

h(t),  $\beta_i$  (more clearly)

5. Model assessment:

- Cox in model fitting, then assess

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

too small / illegible

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

test p-values

\* p-value does not determine 'influence'

- interpret forest plot

5.5 / 7.75

0.75 / 0.75

0.75 /

1.25 / 2

1.25 / 2

1.5 / 2

write as  $\exp(\dots)$  not  $e^{(\dots)}$ , hard to read

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

8. Conclusions

recap analysis

interpretation  
state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- your explanations need more paragraphing -  
every new idea needs a new para, every  
Figure description/interp needs new para

- include in ref date downloaded data

\* cannot conclude causation, only association

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3.5 / 4.25



surv: Name M. Cha 8.25/12 → 4.125/6  
wisc

1. Formatting:

- all margins 2.5cm
- informative title
- 12 pt size
- name on all pages
- no raw R code or output
- all pages numbered
- max **10** pages
- no blurry plots (**NOT png**)

2. Introduction/Background:

- brief statement of scientific question
- all variables defined

1.25  
1  
2

3. EDA:

- univariate numerical
  - bivariate numerical (cor)
  - univariate graphical
  - bivariate graphical
- table of 5-number summaries  
matrix of numbers  
pairs plots  
can put in heat

mostly missing

4. Model fitting:

mathematically  
KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)  
First, write Cox model mathematically, then fit state how model fitted (ie, maximum partial likelihood)

0.75  
1

CLEARLY describe how model selected not 'satisfying'?  
define all terms hazard ratio:  $\lambda_0, h, \beta$ 's

5. Model assessment:

CLEARLY state Cox PH assumptions:

1.5  
2

1. hazards are proportional
2. linear form for covariates
3. no outliers

plot shapes / sizes

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption) — test?
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

carefully interpret plots

5.25/7.75

0.5/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75/1.25

7. Plots:

+ many plots + results are too small, illegible

label size (not too small)

captions

placement

**NOT BLURRY**

0.75/1

8. Conclusions

recap analysis

\* interpretation  
state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor

satisfactory

good

excellent

10. Other comments:

- use primary refs (not course notes, etc)  
and cite specifically in text (no 'general' refs)  
- use paragraphing, your report is hard to follow  
\* careful: cannot conclude causality ('lead to'), only association

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3/4.5

surv: Name \_\_\_\_\_

① Dan

6.25 / 12 → 3.125 / 6

heart failure

1. Formatting:

make 'pretty' tables

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

First introduce context, then scientific question then data

brief statement of scientific question

all variables defined

3. EDA: Table of 5-number summaries

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical - pairs plots

4. Model fitting:

↳ hist, not boxplot

Mathematically

you estimate (not 'compute') probs

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

First write the (Cox) model mathematically state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

→ Did you reject the reduced model

define all terms

h<sub>0</sub>/h/β's

5. Model assessment: - not 'validation'

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

④ KM is an empirical estimator, not a 'model'; the model is Cox PH

clearly & carefully

4.25 / 7.75

1/2 (mostly missing)

0.75 / 1

1/2

0.75

0.25/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

**max 2 sig digits** on coefs

0.75/1.25

7. Plots: + *some plots too small*

**label size** (not too small)

captions

placement

**NOT BLURRY**

*Blurry output*

0/1

8. Conclusions *not done*

recap analysis

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

**satisfactory**

**good**

excellent

10. Other comments:

*- use primary refs*

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2/4.25

good job!!

\* Don't need to re-do

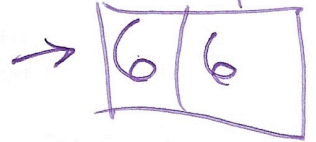
surv: Name

Adid

10.25/12 → 5.125/6

channing

1. Formatting:



all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

0.75 / 0.75

2. Introduction/Background:

brief statement of scientific question

all variables defined

1 / 1

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

2 / 2

4. Model fitting:

excellent

↳ square

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

**define all terms**

2 / 2

5. Model assessment:

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

not done?

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

0.75 / 1

6.5 / 7.75

0.25 / 1

6. Write out final estimated model **mathematically** - explicitly

**hat** on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

1.25 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

1 / 1  
1.25 / 1

8. Conclusions

*use paragraphs*  
*recap analysis* *state main findings* *excellent!!*

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- use primary refs (not course notes)

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3.75 / 4.25

surv: Name

ADif

3.25/12 → 1.625/6

bone marrow

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

① Context  
② Scientific question (be specific)  
③ Described data

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

0.75/0.75

0.75/1

1/2

0.25

2

0/2

2.75/7.75

0/1  
0.5/1  
0/1  
0/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coeffs in table)

max **2 sig digits** on coeffs

7. Plots:

+ plot sizes too small

label size (not too small)

captions

placement

Blank space

**NOT BLURRY**

8. Conclusions

not done

recap analysis

state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- use paragraphing, your report is impossible to read

- no refs

0.5/4.25



surv: Name ovarian P-ME 8.5/12 → H.25/6

1. Formatting:

0.75/0.75

- all margins 2.5cm
- informative title
- 12 pt size
- name on all pages
- no raw R code or output
- all pages numbered
- max **10** pages
- no blurry plots (**NOT png**)

2. Introduction/Background:

1/1

- brief statement of scientific question
- all variables defined

3. EDA:

1.5/2

(+ time)  
5-number summary

- univariate numerical
- bivariate numerical (cor)
- univariate graphical
- bivariate graphical

4. Model fitting:

mathématiquement

1.25/2

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

seuil 5% (pas 95%)

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

**define all terms**

$h/\beta$ 's

5. Model assessment:

'Évaluation', pas 'Validation'

**CLEARLY** state Cox PH assumptions:

1.25/2

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

5.75/7.75

expliquer / interpréter les graphiques, il n'est pas suffisant de constater vos conclusions

0.5/1 difficile à comprendre

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75/1.25

7. Plots:

label size (not too small)

captions

placement

(NOT BLURRY)

0.5/1

8. Conclusions

recap analysis

⊗ interpretation  
state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

-aussi citer le jeu de données, en donnant la date de téléchargement  
⊗ on ne peut pas conclure causalité, seulement association

2.75/4.25

Surv: Name \_\_\_\_\_

*blalock*

*SF*

*8.75 / 12 → 4.375 / 6*

1. Formatting:

*0.75 / 0.75*

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max **10** pages

no blurry plots (**NOT** png)

2. Introduction/Background:

*0.75 / 1*

*use paragraphs explicitly*

brief statement of scientific question

all variables defined

3. EDA:

*2 / 2*

*Don't need figure 2; put fig 3 side by side in same plot*

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

*KM is not a 'model', it's an est. of survival fn*

*mathematically*

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

*1.25 / 2*

*First write Cox model mathematically state how model fitted (ie, maximum partial likelihood)*

**CLEARLY** describe how model selected

**define all terms**

*$\alpha, \beta, HR$  not*

5. Model assessment:

*you assess (not verify) assumptions*

**CLEARLY** state Cox PH assumptions:

*1.25 / 2*

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

*6 / 7.75 → interpret plots, don't just state conclusions*

0.25

6. Write out final estimated model **mathematically**

*explicitly*

**hat** on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

1.25 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.25 / 1

8. Conclusions

recap analysis

*'seemed to' ? 'confirmed'?*  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

**good**

excellent

10. Other comments:

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2.75 / 4.25

surv: Name

KGaf

5.75/12

2.875/6

1. Formatting:

0.5/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

too many digits

2. Introduction/Background:

1/1

(+ context)

brief statement of scientific question

all variables defined

3. EDA:

0.5/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

very incomplete

incomplete mathematically

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

0.5/2

First write Cox model mathematically state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

$\beta_0, \beta_1, \beta_2$

5. Model assessment:

CLEARLY state Cox PH assumptions:

0.75/2

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

interpret plots, don't just state conclusions

3.25/7.75

0.5 / 1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

0.75 / 1.25

7. Plots:

label size (not too small)  
placement

captions

**(NOT BLURRY)**

0.5 / 1

8. Conclusions

**AEDA**  
recap analysis

interpret  
state main findings

0.75 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor / satisfactory      good      excellent

10. Other comments:

-no refs  
-use paragraphs

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2.5 / 4.25

surv: Name

addicts

R Ganj

7/12 → 3.5/6

1. Formatting:

0.25/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

**no raw R code or output**

all pages numbered

max **10** pages

no blurry plots (**NOT** png)

2. Introduction/Background:

0.75/1

brief statement of scientific question

not quite correct

all variables defined

3. EDA:

1.75/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

mathematically

→ don't need boxplots  
→ SQUARE QQ

mathematically

**KM (write out estimator and variance)** + log-rank test: state null /

alt hyps, value of test stat, give null dist of test stat, p-value,

conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

**define all terms**

$h_0 | h | \beta_i$ 's

5. Model assessment:

**CLEARLY** state Cox PH assumptions:

1/2 interpretation

1. hazards are proportional

2. linear form for covariates

3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

not clear

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

4.5/7.75

0.25 / 1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

0.75 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

→ Figure 5 victim of copy/paste!  
☺

0.5 / 1

8. Conclusions

recap analysis

use paragraphs

\* interpretation  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

**good**

excellent

10. Other comments:

- no refs

\* cannot conclude causation, only association

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2.5 / 4.25



surv: Name LGou 7.5/12 → 3.75/6

1. Formatting:

0.5 / 0.75

all margins 2.5cm

12 pt size

no raw R code or output

max 10 pages

informative title

name on all pages

all pages numbered

no blurry plots (NOT png)

2. Introduction/Background:

1 / 1

brief statement of scientific question (OK)

all variables defined

3. EDA:

0.75 / 2

univariate numerical → table of 5-number summaries

bivariate numerical (cor) entire matrix

univariate graphical

→ hist, not boxplots

bivariate graphical

4. Model fitting:

1 / 2

fix formula 2

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject) → more 'precise' estimate?

mostly not specified

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

→ table 3: also include SE, z

5. Model assessment:

1.25 / 2

→ you assess (not 'verify') assumptions CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

clearly interpret

4.5 / 7.75

0.75 / 1

6. Write out final estimated model **mathematically**

*(explicitly)*  
hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75 / 1.25

7. Plots:

*+ most plots too small*  
label size (not too small)

captions

placement

**NOT BLURRY**

0.5 / 1

8. Conclusions

*(recap analysis)*

*very vague and generic*  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

*use more paragraphing to make report easier to follow*

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3/4.25

surv: Name \_\_\_\_\_

EH

8/12 → 4/6

Bone marrow

1. Formatting:

0.75 / 0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

0.75 / 1

① Context

brief statement of scientific question

② scientific question

③ Data description

all variables defined

3. EDA:

1.5 / 2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

pairs plots  
mathematically

4. Model fitting:

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

$\gamma_0$ ,  $\beta_i$ 's / AIC

5. Model assessment:

not 'validation'

CLEARLY state Cox PH assumptions:

First, then do individually

1. hazards are proportional
2. linear form for covariates
3. no outliers

not 'values' (captions)

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

carefully interpret plots, don't just state conclusions

4.75 / 7.75

1/1 OK  
6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75 / 1.25  
7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.5 / 1  
8. Conclusions

(+ED A)  
recap analysis

\* interpretation  
state main findings

1/1  
9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- Don't need coverpage / course name (EPFL logo)

- more paragraphing

- 'Impact of' → you can't say whether a condition extends survival (causation), only whether it is associated with longer survival

- no refs

\* cannot determine causation, only association

- Cox not cox

3.25 / 4.25

surv: Name OKoh 5/12 → 2.5/6  
PBC

1. Formatting:

0.75/  
0.75/ (12 pt size)?

- all margins 2.5cm
- informative title
- name on all pages
- all pages numbered
- no raw R code or output
- no blurry plots (NOT png)
- max **10** pages

2. Introduction/Background: - give context before question  
brief statement of scientific question

0.75/  
1

all variables defined

3. EDA: not done?

0/2

- univariate numerical
- bivariate numerical (cor)
- univariate graphical
- bivariate graphical

4. Model fitting: no explanation

0.25/  
2

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

**define all terms**

any relevant conclusions??  
you only have plots,  
no explanation/  
interpretation

5. Model assessment:

0.25/  
2

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:  
Schoenfeld residuals (PH assumption)  
Martingale residuals (linear form for continuous variables)  
Deviance residuals (to identify outliers)

2/7.75

0.5 / 1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

1 / 1.25

7. Plots:

label size (not too small)

placement

make meaningful captions  
captions

**NOT BLURRY**

0.5 / 1

8. Conclusions

recap analysis

'relevant'? \*interpretation  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- refs on new page AFTER rest of report  
and put all tables/figs BEFORE conclusion

\* Cannot conclude causation, only association

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3 / 4.25

surv: Name

heart failure

SKS

6.25/12 →

3.125/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

brief statement of scientific question

explicitly

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

\* Figure 4 unnecessary, do KM based on your variables

3.75/7.75

0.75/0.75

0.75/1

1/2

not true, surv curve from data, it's empirical

0.5/2

0.75/2

for Cox model !!

not done

0 / 1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

1 / 1

8. Conclusions

OK, but for the wrong analysis

recap analysis

state main findings

0.75 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor satisfactory

good

excellent

10. Other comments:

- don't need to refer to class / me



\* You seem to misunderstand the problem -  
you are not trying to predict death yes/no;  
death is the censoring indicator, you are  
supposed to estimate the survival fn (KM)  
and model the hazard fn (Cox reg),  
so don't need appendix or chapter 2  
- use paragraphing

⇒ follow along with the survival analysis lab  
and leave out the machine learning

2.5 / 4.25



surv: Name

NM

8.75/12 → 4.375/6

PBC

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

- trop de digits

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null /

alt hyps, value of test stat, give null dist of test stat, p-value,

conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional

2. linear form for covariates

3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

- hyps mathématiquement

5/5.75

0.5/0.75

1/1

1/2

1/2

pour tout

modèle de Cox pour modélisation de la fn hasard (pas survie)

Résumé à 5-valeurs

explications

mathématiquement

interprétation: on ne peut pas en conclure causalité, seulement association

h n'est pas temps de survie, c'est le hasard Evaluation pas 'validation'

Figure 4 inutile

clairement

0.75 / 1

6. Write out final estimated model **mathematically**

(hat) <sup>OK</sup>

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

(circled)

1.25 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.75 / 1

8. Conclusions

recap analysis

(\*) Interpretation  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

(circled) good

excellent

10. Other comments:

- cite primary refs

- modele de Cox (pas Cox ph)

(\*) on ne peut pas en conclure causalité, seulement association

3.75 / 4.25

surv: Name

addicts

CP

7.25/12 → 3.625/6

1. Formatting:

0.5/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

0.75/1

2. Introduction/Background:

① Context  
② Scientific question  
③ Data description

brief statement of scientific question

all variables defined

2/2

3. EDA:

(OK)

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

very incomplete mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

first write Cox model mathematically. cannot conclude causation, only association. mathematically

CLEARLY describe how model selected

define all terms

h/h0 / βi's / AIC / stepwise

5. Model assessment:

→ NOT 'verify' model is sig. not 'verify' very superficial

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

Carefully interpret plots

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

- 5% level of sig (not 95%)

\* Interpretation

4.5/7.75

0.5/2

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

0.75/1.25

7. Plots:

*shapes*

label size (not too small)

placement

**captions**

*make informative (not 'verification')*

**NOT BLURRY**

0.5/2

8. Conclusions

recap analysis

**\*\* interpretation**  
state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

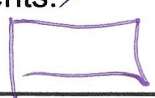
~~satisfactory~~

good

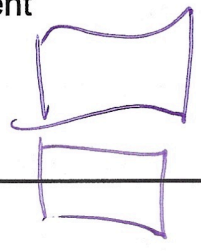
excellent

10. Other comments:

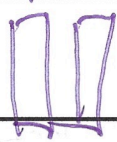
~~- Km~~



or



not



- no refs

- why are so many plots after the end?

put them in the text

**\*\* cannot conclude causation, only association**

- where do you discuss Fig 5/6/7/8 ??

2.75/4.25

surv. Name addicts

JRe

7.25 / 12

3.625 / 6

1. Formatting:

0.5 / 0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

**no raw R code or output**

all pages numbered

max **10** pages

no blurry plots (**NOT png**)

*(Final model)*

2. Introduction/Background:

0.75 / 1

brief statement of scientific question

*specifically*

all variables defined

3. EDA:

2 / 2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

*Comment: hard to say how differential censoring would affect conclusions*

*mathematically*

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

*mathematically*

state how model fitted (ie, maximum partial likelihood)

*First write Cox model mathematically*

0.75 / 2

**CLEARLY** describe how model selected

*- interpret forest plot*

*\**

**define all terms**

*h<sub>0</sub>/h<sub>1</sub>/β<sub>i</sub>'s not 'validated'*

5. Model assessment:

0.75 / 2

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

*Carefully interpret plots, don't just state your conclusions*

carry out assessment (graphics) and **EXPLAIN:**

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

4.75 / 7.75

*\* interpretation: cannot conclude causation, only association*

0.25/1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75/1

7. Plots:

(+ plot shape - Schoenfeld)

label size (not too small)

captions

placement

**NOT BLURRY**

0.5/1

8. Conclusions

recap analysis

\* interpretation  
state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- no refs

- use paragraphing

- 'Comment' - how you have it is fine 😊

\* cannot conclude causation, only association

2.5/4.25

surv: Name SR 7/12 → 3.5/6  
heart attack

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max **10** pages

no blurry plots (**NOT png**)

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor) matrix

univariate graphical

bivariate graphical

4. Model fitting:

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

**define all terms**

5. Model assessment:

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption) → test?
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

⊕ You start out with a hyp test before introducing model  
- not a logical order

not done

what you have is superficial

clearly interpret plots, don't just state conclusions

0.75 / 0.75

0.75 / 1

1.25 / 2

0.5 / 2

1 / 2

4.25 / 7.75

0/0

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

1.25/  
1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.5/

8. Conclusions

recap analysis

state main findings

4/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- cite primary refs

- Start See 3-1 p.6, words first then plot

- use paragraphing

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2.75/4.25



surv: Name \_\_\_\_\_

Osa 7.75 / 12 → 4.875 / 6

1. Formatting:

0.5 / 0.75

all margins 2.5cm

12 pt size

no raw R code or output

max 10 pages

informative title

name on all pages

all pages numbered

no blurry plots (NOT png)

2. Introduction/Background:

0.75 / 1

brief statement of scientific question

be specific

all variables defined

3. EDA:

1.25 / 2

univariate numerical

univariate graphical

bivariate numerical (cor)

bivariate graphical

frequency table(s) for non-numeric  
table of 5-number summaries for numeric

4. Model fitting:

mathematically

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

1 / 2

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

h, β's → h(t) not properly stated (words)  
you assess (not 'validate') assumptions

Figure 4: side by side boxplots

5. Model assessment:

2 / 2

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

5.5 / 7.75

0/1 (1) not done?

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.5 / 1.25

7. Plots:

plot shapes not attractive + plots too small/ illegible

label size (not too small)

captions

placement

**NOT BLURRY**

0.75 / 1

8. Conclusions

recap analysis

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- cite primary refs

- cite data source, including date you downloaded

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2.25 / 4.25

surv: Name JSch 8.25/12 → 4.125/6  
blalock

1. Formatting:

0.75/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max **10** pages

(no blurry plots (NOT png))

2. Introduction/Background:

0.75/1

brief statement of scientific question

- be more specific

all variables defined

3. EDA:

1.5/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

mathematically

1.5/2

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

↳ df?

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

define all terms  $\alpha, \beta$ 's

5. Model assessment:

1.25/2

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

5.75/7.75

0.25 / 1

6. Write out final estimated model

mathematically *explicitly*

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75 / 1.25

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.5 / 1

8. Conclusions

recap analysis

*don't 'validate' assumptions*  
state main findings

1 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- Meier (not Meijer)

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2.5 / 4.25

surv: Name \_\_\_\_\_

SS

8.75 / 12 → 4.375 / 6

wisc

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

(no raw R code or output)

all pages numbered

max 10 pages

no blurry plots (NOT png)

- too many digits

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

explain interpretations, don't just state conclusions

0.75 / 0.75

1 / 1

1.5 / 2

1 / 2

1.25 / 2

5.5 / 7.75

→ 5 number summaries table

→ write as matrix

mostly not done

mathematically

mathematically

ho / h / βi's

you assess (not 'verify') assumptions

0.5/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

7. Plots:

1/1.25 **label size** (not too small)  
*on some*

captions

placement

**NOT BLURRY**

0.5/1

8. Conclusions

recap analysis

state main findings

*why 'robust'?*  
*you haven't examined*  
*this*

1.25/1

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor

satisfactory

good

excellent

10. Other comments:

*- no refs*

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3.25/4.25

surv: Name \_\_\_\_\_

ASj

8.75/12 → 4.375/6

1. Formatting:

0.75/0.75

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

use paragraphs

brief statement of scientific question

all variables defined

3. EDA:

1/2

freq tables for categorical / 5-number summary table for numeric

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

use paragraphs

for status/time use boxplots

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

→ explanation could be more clear state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

Results: also include SE + z-value

5. Model assessment:

use paragraphs

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN: (clearly) Schoenfeld residuals (PH assumption) Martingale residuals (linear form for continuous variables) Deviance residuals (to identify outliers)

test p-values?

5.5/7.75

0.75 /

6. Write out final estimated model **mathematically** *not clear that you are estimating  $h(t)$  by  $\hat{h}(t)$  and also the exp component*  
hat on response variable **max 2 sig digits on coeffs**  
(ok if coeffs in table)

0.75 /  
0.75

7. Plots: *+ many plots too small*  
label size (not too small) *informative - you don't indicate presence of confidence bands (for exam)*  
aspect ratio - resid plots *captions*  
placement *NOT BLURRY*  
*not 'pretty'*

0.75 /

8. Conclusions  
*(+EDA)*  
recap analysis **state main findings including estimated model**

1 /

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor      satisfactory      **good**      excellent

10. Other comments:

- use paragraphing - your report is very hard to follow  
- cite data source, including date downloaded

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3.25 / 4.25



surv: Name

JTa 9/12 → 4.5/6

Gyriian

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

0.75 / 0.75

2. Introduction/Background:

brief statement of scientific question

all variables defined

1/1

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

1.5 / 2

categorical: freq tables  
numerical: 5-number summary (table)

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

Don't need boxplots

not a 'model', it's an empirical estimator of the survival fn

mathematically

write model first, then fit

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

for Cox - at top of page

1.5 / 2

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

Schoenfeld residuals (PH assumption)

Martingale residuals (linear form for continuous variables)

Deviance residuals (to identify outliers)

interpret plots, don't just give conclusions

6 / 7.75

0.75/1 - put coefs inline, you can interpret later

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

7. Plots:

label size (not too small)

placement

captions

**NOT BLURRY**

make informative,  
for example you  
don't mention  
confidence bands

8. Conclusions

recap analysis

state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

- use primary refs (not course notes, etc)  
+ ref of the survival pkg

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3 / 4.25

surv: Name \_\_\_\_\_

PT-L 9.75/12 → 4.875/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

0.75/0.75

2. Introduction/Background:

brief statement of scientific question

be specific for your report

all variables defined

0.75/1

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

↳ don't need boxplots + square QQ

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

mathematically

state how model fitted (ie, maximum partial likelihood)

(CLEARLY) describe how model selected

(define all terms)

h/β's excellent

• 190? Don't you mean 1 (or 10%)

5. Model assessment:

(CLEARLY) state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

1.5/2 Display Cox model

2/2

6.75/7.75

0.5 / 1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if ~~coefs~~ in table)

max 2 sig digits on coefs

not predictors

0.75 / 0.75

7. Plots:

+ Shapes  
label size (not too small)  
placement

captions

**NOT BLURRY**

0.5 / 1

8. Conclusions

recap analysis

\* interpretation  
state main findings

1.25 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor      satisfactory      good      excellent

10. Other comments:

- KM plots:     not

\* cannot determine causation, only association

- Cox results

- when you have in line formula, use  $\displaystyle$

3 / 4.25

surv: Name heart attack

UV

7/12 →

3.5/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

name on all pages

no raw R code or output

all pages numbered

max 10 pages

no blurry plots (NOT png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

not trying to predict 'alive at', its the censoring indicator

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

state how model fitted (ie, maximum partial likelihood)

CLEARLY describe how model selected

define all terms

OK, but did you try any smaller models?

5. Model assessment:

CLEARLY state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

carry out assessment (graphics) and EXPLAIN:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

Carefully interpret plots, dont just state conclusions

0.75 / 0.75

0.25 / 1

0 / 2

mathematically

1.5 / 2

1 / 2

3.5 / 7.75

1/1

6. Write out final estimated model **mathematically**

**hat** on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

1/1.25

7. Plots: *- some plots too small; shape not 'pretty' (residuals plots)*

label size (not too small)

captions

placement

**NOT BLURRY**

0.5/1

8. Conclusions

*(+ EDA / KM)  
recap analysis*

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

*- use paragraphing to make report easier to follow*  
*- Figure, not Fig.*

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3.5 / 4.25

surv: Name LW 7.25/12 → 3.625/6

1. Formatting:

0.25/0.75  
all margins 2.5cm  
12 pt size  
**no raw R code or output**  
max **10** pages

informative title  
name on all pages  
all pages numbered  
no blurry plots (**NOT** png)

2. Introduction/Background:

0.75/1  
brief statement of scientific question — BEFORE data description  
all variables defined

3. EDA:

1.25/2  
univariate numerical      bivariate numerical (cor)  
univariate graphical      bivariate graphical

4. Model fitting:

Figure 1 unclear — why are there 3 plots?  
Use your own words not 'long' (mathematically)  
KM (write out estimator and variance) + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)  
no  $\lambda$  in Cox model (before fitting)  
state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

define all terms — interpret  $\beta$ 's

5. Model assessment:

hazard fn  
not 'confirm', not 'verify'  
1.25/2  
**CLEARLY** state Cox PH assumptions:  
1. hazards are proportional  
2. linear form for covariates  
3. no outliers

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

clearly interpret plots

\* results table should also have  $SE(\hat{\beta})$  / z / p-val

4.5/7.75

$\beta$ 's

0.75

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max 2 sig digits on coefs

0.75

7. Plots:

+ size of some plots too small

label size (not too small)

captions

make clear and meaningful  
specific

placement

**NOT BLURRY**

0.5

8. Conclusions

recap analysis

\* interpretation  
state main findings

0.75

9. Overall presentation (clarity of explanations, appropriate citations / references):

- spell check

poor

satisfactory

good

excellent

10. Other comments:

- cite primary refs (not course notes, etc)

- no R commands

\* you have NOT shown 'hyps are true'

+ be careful with interpretation; cannot conclude truth or causation, only association

→ use your own words

2.75 / 4.25



surv: Name Jy 7/12 → 3.5 / 6  
Wisc

1. Formatting:

- all margins 2.5cm
- informative title
- 12 pt size
- name on all pages
- no raw R code or output**
- all pages numbered
- max **10** pages
- no blurry plots (**NOT png**)

0.75 / 0.75

2. Introduction/Background:

- brief statement of scientific question
- all variables defined

1 / 1

3. EDA:

- univariate numerical
- bivariate numerical (cor)
- univariate graphical
- bivariate graphical

1 / 2

4. Model fitting:

**KM (write out estimator and variance)** + log-rank test: state null / alt hyps, value of test stat, give null dist of test stat, p-value, conclusion (reject / do not reject)

mostly not done

state how model fitted (ie, maximum partial likelihood)

**CLEARLY** describe how model selected

what you have is confusing

**define all terms**

- interpret table 3

5. Model assessment:

**CLEARLY** state Cox PH assumptions:

1. hazards are proportional
2. linear form for covariates
3. no outliers

0.75 / 2

carry out assessment (graphics) and **EXPLAIN**:

- Schoenfeld residuals (PH assumption)
- Martingale residuals (linear form for continuous variables)
- Deviance residuals (to identify outliers)

plot interpretations not completely correct

interpretation of p-value incorrect

4.25 / 7.75

$h_0$  not estimated, so no  $\hat{h}_0$

0.5/1

6. Write out final estimated model **mathematically**

hat on response variable  
(ok if coefs in table)

max **2 sig digits** on coefs

0.75/1

7. Plots: + most plots too small

label size (not too small)

captions

make informative

placement

**NOT BLURRY**

for example you  
don't say KM

0.5/1

8. Conclusions [redo after you fix KM (Cox)]

have confidence bands

recap analysis

state main findings

1/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

10. Other comments:

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2.75/7.75