

# Etude BICAR-ICU

2025-06-23

## Mise en place du jeu de donnée

```
## Warning: le package 'WINS' a été compilé avec la version R 4.4.3
```

## Analyse non stratifiée

```
## This analysis is unstratified.
```

```
##           Win Loose   Tie
## Décès      11128  7298 18240
## Dialyse     5664  3048  9528
## ventil_free_day 1937  1910  5681
## vaso_free_day 1785  1883  2013
## overall    20514 14139  2013
```

```
##           Win Ratio Net Benefit   Win Odds
## value 0.00339508 0.003777746 0.003431451
```

```
##           CI_lower   Valeur   CI_upper
## Win Ratio  1.13107911 1.4508805 1.8611027
## Net Benefit 0.05649389 0.1747677 0.2930414
## Win Odds   1.12368465 1.4235599 1.8034622
```

```
##           Métrique   Valeur   CI_lower   CI_upper   z_score   p_val
## WR   Win Ratio 1.4508805 1.13107911 1.8611027 2.929500 0.003395080
## NB Net Benefit 0.1747677 0.05649389 0.2930414 2.896148 0.003777746
## WO   Win Odds 1.4235599 1.12368465 1.8034622 2.926187 0.003431451
```

## Analyse stratifiée

### Stratification selon l'âge

### Stratification globale de l'âge

```
## 6 and 0 objects with missing values are removed in the treatment and control group, respectively.
```

```
## Warning in win.stat(data = data_age, ep_type = c("binary", "binary",
## "continuous", : All the data entered of these objects will be removed due to
## incomplete/missing data.
```

```
##          CI_lower  Valeur  CI_upper
## Win Ratio   1.15793843 1.486816 1.9091006
## Net Benefit 0.06718356 0.185862 0.3045405
## Win Odds    1.14882358 1.456586 1.8467960

##      Métrique  Valeur  CI_lower  CI_upper  z_score      p_val
## WR   Win Ratio 1.486816 1.15793843 1.9091006 3.109631 0.001873215
## NB Net Benefit 0.185862 0.06718356 0.3045405 3.069494 0.002144214
## WO   Win Odds 1.456586 1.14882358 1.8467960 3.105590 0.001898995
```

### Analyse sur "< 65 ans"

## This analysis is unstratified.

```
##          CI_lower  Valeur  CI_upper
## Win Ratio   0.97922269 1.3993278 1.999666
## Net Benefit -0.01144305 0.1579075 0.327258
## Win Odds    0.97998188 1.3750359 1.929346

##          Win Loose  Tie
## Décès      2436   1581 4260
## Dialyse     1215    738 2307
## ventil_free_day 297   392 1618
## vaso_free_day 632    562 424
## overall    4580   3273 424

##      Métrique  Valeur  CI_lower  CI_upper  z_score      p_val
## WR   Win Ratio 1.3993278 0.97922269 1.999666 1.844689 0.06508278
## NB Net Benefit 0.1579075 -0.01144305 0.327258 1.827529 0.06762031
## WO   Win Odds 1.3750359 0.97998188 1.929346 1.842950 0.06533634
```

### Analyse sur ">= 65 ans"

## This analysis is unstratified.

```
##          CI_lower  Valeur  CI_upper
## Win Ratio   1.10386843 1.564103 2.2162214
## Net Benefit 0.04346656 0.209000 0.3745334
## Win Odds    1.09766369 1.528445 2.1282877

##          Win Loose  Tie
## Décès      3038   1938 5024
## Dialyse     1733    804 2487
## ventil_free_day 743   578 1166
## vaso_free_day 281    385 500
## overall    5795   3705 500

##      Métrique  Valeur  CI_lower  CI_upper  z_score      p_val
## WR   Win Ratio 1.564103 1.10386843 2.2162214 2.515746 0.01187809
## NB Net Benefit 0.209000 0.04346656 0.3745334 2.474621 0.01333778
## WO   Win Odds 1.528445 1.09766369 2.1282877 2.511627 0.01201761
```

## Stratification selon la septicémie

### Stratification globale de la septicémie

```
##              CI_lower  Valeur  CI_upper
## Win Ratio    1.16069962 1.5004852 1.9397404
## Net Benefit  0.06778843 0.1890448 0.3103012
## Win Odds     1.15048089 1.4662276 1.8686301

##      Métrique  Valeur  CI_lower  CI_upper  z_score  p_val
## WR   Win Ratio 1.5004852 1.16069962 1.9397404 3.097498 0.001951617
## NB Net Benefit 0.1890448 0.06778843 0.3103012 3.055682 0.002245489
## WO   Win Odds 1.4662276 1.15048089 1.8686301 3.092885 0.001982211
```

### Analyse selon la septicémie

```
## 4 and 0 objects with missing values are removed in the treatment and control group, respectively.
```

```
## Warning in win.stat(data = data_septicémie_oui, ep_type = c("binary", "binary", :
## All the data entered of these objects will be removed due to incomplete/missing
## data.
```

```
## This analysis is unstratified.
```

```
##              CI_lower  Valeur  CI_upper
## Win Ratio    1.04426263 1.4399391 1.9855394
## Net Benefit  0.01857691 0.1703524 0.3221278
## Win Odds     1.04133981 1.4106619 1.9109680

##              Win Loose  Tie
## Décès          4225  2646  7151
## Dialyse         2152  1197  3802
## ventil_free_day  820   869  2113
## vaso_free_day   367   541  1205
## overall        7564  5253  1205

##      Métrique  Valeur  CI_lower  CI_upper  z_score  p_val
## WR   Win Ratio 1.4399391 1.04426263 1.9855394 2.224174 0.02613673
## NB Net Benefit 0.1703524 0.01857691 0.3221278 2.199858 0.02781694
## WO   Win Odds 1.4106619 1.04133981 1.9109680 2.221517 0.02631599
```

### Analyse selon non-septicémie

```
## This analysis is unstratified.
```

```
##              CI_lower  Valeur  CI_upper
## Win Ratio    1.1079656 1.6627551 2.4953434
## Net Benefit  0.0433404 0.2349005 0.4264607
## Win Odds     1.1003404 1.6140392 2.3675607
```

```
##              Win Loose Tie
## Décès        1638  1120 2772
## Dialyse       790   294 1688
## ventil_free_day 284   189 1215
## vaso_free_day 547   357  311
## overall      3259  1960  311
```

```
##      Métrique   Valeur  CI_lower  CI_upper  z_score    p_val
## WR   Win Ratio 1.6627551 1.1079656 2.4953434 2.454966 0.01408979
## NB Net Benefit 0.2349005 0.0433404 0.4264607 2.403405 0.01624319
## WO   Win Odds 1.6140392 1.1003404 2.3675607 2.449134 0.01432002
```

## Stratification selon le score AKIN

### Stratification globale

```
##              CI_lower   Valeur  CI_upper
## Win Ratio   1.14180282 1.4682642 1.8880665
## Net Benefit 0.06042323 0.1791737 0.2979242
## Win Odds    1.13287287 1.4365691 1.8216792
```

```
##      Métrique   Valeur  CI_lower  CI_upper  z_score    p_val
## WR   Win Ratio 1.4682642 1.14180282 1.8880665 2.993508 0.002757905
## NB Net Benefit 0.1791737 0.06042323 0.2979242 2.957243 0.003104034
## WO   Win Odds 1.4365691 1.13287287 1.8216792 2.989513 0.002794230
```

### Analyse AKIN : 0-1

```
## This analysis is unstratified.
```

```
##              CI_lower   Valeur  CI_upper
## Win Ratio   0.88286442 1.23277425 1.7213655
## Net Benefit -0.05934652 0.09872152 0.2567896
## Win Odds    0.88865353 1.21906997 1.6723408
```

```
##              Win Loose Tie
## Décès        2726  2408 5269
## Dialyse       1228   651 3390
## ventil_free_day 544   402 2444
## vaso_free_day  941   951  552
## overall      5439  4412  552
```

```
##      Métrique   Valeur  CI_lower  CI_upper  z_score    p_val
## WR   Win Ratio 1.23277425 0.88286442 1.7213655 1.228561 0.2192364
## NB Net Benefit 0.09872152 -0.05934652 0.2567896 1.224097 0.2209156
## WO   Win Odds 1.21906997 0.88865353 1.6723408 1.228097 0.2194105
```

## Analyse AKIN : 2-3

## This analysis is unstratified.

##		CI_lower	Valeur	CI_upper
##	Win Ratio	1.2745061	1.8680262	2.7379404
##	Net Benefit	0.1049343	0.2848485	0.4647626
##	Win Odds	1.2536676	1.7966102	2.5746921

##		Win	Loose	Tie
##	Décès	2793	1287	3840
##	Dialyse	1359	540	1941
##	ventil_free_day	560	603	778
##	vaso_free_day	143	169	466
##	overall	4855	2599	466

##	Métrique	Valeur	CI_lower	CI_upper	z_score	p_val
##	WR Win Ratio	1.8680262	1.2745061	2.7379404	3.203430	0.001358011
##	NB Net Benefit	0.2848485	0.1049343	0.4647626	3.103106	0.001915007
##	WO Win Odds	1.7966102	1.2536676	2.5746921	3.191372	0.001415986

## Stratification selon le score AKIN et l'âge

Ici nous avons 4 strates :

- strate 1 : score AKIN : 0-1 & age < 65 ans
- strate 2 : score AKIN : 2-3 & age < 65 ans
- strate 3 : score AKIN : 0-1 & age >= 65 ans
- strate 3 : score AKIN : 2-3 & age >= 65 ans

##		CI_lower	Valeur	CI_upper
##	Win Ratio	1.16767977	1.5030233	1.9346735
##	Net Benefit	0.07054102	0.1896851	0.3088292
##	Win Odds	1.15688707	1.4681763	1.8632257

##	Métrique	Valeur	CI_lower	CI_upper	z_score	p_val
##	WR Win Ratio	1.5030233	1.16767977	1.9346735	3.163446	0.001559132
##	NB Net Benefit	0.1896851	0.07054102	0.3088292	3.120390	0.001806120
##	WO Win Odds	1.4681763	1.15688707	1.8632257	3.158643	0.001585054