# Exemples de mesures

Il est utile de mesurer ce type de résultat sur des séries importantes de volontaires pour avoir une approche statistique de la relation entre quantité d'alcool absorbée et alcoolémie. Les données suivantes (Jones et Jonsson, journal of forensic science, 1994) représente l'évolution de l'alcoolémie chez des sujets en bonnes santé d’âge et de corpulences comparables qui ont ingéré des quantités comparables d’alcool selon un protocole très strict. Le constat est simple, les variations peuvent être très importantes et proscrivent toutes les approches simplifiant à l'excès la relation entre l'alcool absorbé et le niveau d'alcoolémie mesuré. (attention, les anglo-saxons ont l'habitude d'exprimer l'alcoolémie en milligrammes par décilitre de sang, la valeur 100 correspond à 1 gramme/litre).

## Human pharmacokinetics of ethanol

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Ten healthy men drank 0.80 g ethanol kg-1 body weight on four occasions spread over several weeks. Ethanol was given as 96% v/v solvent which was diluted with orange juice to make a cocktail (20-25% v/v). This drink was ingested in exactly 30 min at 08.00 h after an overnight (10 h) fast. 2. Samples of venous blood were obtained at exactly timed intervals of 0, 10, 20, 30, 45, 60, 90, 120, 150, 180, 240, 300, and 360 min after the start of drinking. The concentrations of ethanol in whole blood were determined by headspace gas chromatography. 3. Summary measures were used to evaluate the concentration-time profiles of ethanol for each subject. The between-subject and within-subject components of variation for the pharmacokinetics of ethanol were derived by one-way analysis of variance (ANOVA). 4. The variation between different subjects dominated the total variance for all of the pharmacokinetic parameters studied except the rate of disappearance of ethanol from blood (ko). For this latter parameter, 42% and 58% of the total variation arose from variations between- and within-subjects respectively. These results might be important to consider when experiments on the clinical pharmacokinetics of ethanol are being planned.

## Empty stomach

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| Subject 1   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 8 | | 0,33 | 42 | | 0,5 | 82 | | 0,75 | 92 | | 1 | 102 | | 1,5 | 93 | | 2 | 84 | | 2,5 | 78 | | 3 | 68 | | 4 | 58 | | 5 | 44 | | 6 | 31 | | 7 | 15 | | Subject 2   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 15 | | 0,33 | 22 | | 0,5 | 63 | | 0,75 | 95 | | 1 | 90 | | 1,5 | 82 | | 2 | 80 | | 2,5 | 78 | | 3 | 72 | | 4 | 62 | | 5 | 46 | | 6 | 31 | | Subject 3   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 14 | | 0,33 | 43 | | 0,5 | 65 | | 0,75 | 109 | | 1 | 99 | | 1,5 | 96 | | 2 | 85 | | 2,5 | 79 | | 3 | 71 | | 4 | 59 | | 5 | 41 | | 6 | 20 | | Subject 4   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 43 | | 0,33 | 106 | | 0,5 | 145 | | 0,75 | 130 | | 1 | 136 | | 1,5 | 120 | | 2 | 105 | | 2,5 | 98 | | 3 | 95 | | 4 | 80 | | 5 | 71 | | 6 | 55 | |
| Subject 5   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 8 | | 0,33 | 40 | | 0,5 | 68 | | 0,75 | 98 | | 1 | 95 | | 1,5 | 96 | | 2 | 87 | | 2,5 | 81 | | 3 | 75 | | 4 | 61 | | 5 | 48 | | 6 | 29 | | 7 | 15 | | Subject 6   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 7 | | 0,33 | 14 | | 0,5 | 30 | | 0,75 | 65 | | 1 | 73 | | 1,5 | 95 | | 2 | 86 | | 2,5 | 84 | | 3 | 75 | | 4 | 62 | | 5 | 45 | | 6 | 30 | | 7 | 19 | | Subject 7   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 36 | | 0,33 | 63 | | 0,5 | 90 | | 0,75 | 93 | | 1 | 84 | | 1,5 | 110 | | 2 | 97 | | 2,5 | 92 | | 3 | 84 | | 4 | 71 | | 5 | 53 | | 6 | 37 | | Subject 8   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 12 | | 0,33 | 43 | | 0,5 | 104 | | 0,75 | 110 | | 1 | 104 | | 1,5 | 90 | | 2 | 85 | | 2,5 | 80 | | 3 | 75 | | 4 | 64 | | 5 | 48 | | 6 | 32 | | 7 | 16 | |
| Subject 9   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 28 | | 0,33 | 54 | | 0,5 | 88 | | 0,75 | 100 | | 1 | 97 | | 1,5 | 85 | | 2 | 78 | | 2,5 | 70 | | 3 | 65 | | 4 | 53 | | 5 | 31 | | 6 | 18 | | 7 | 5 | | Subject 10   |  |  | | --- | --- | | **h** | **mg/dL** | | 0 | 0 | | 0,17 | 7 | | 0,33 | 16 | | 0,5 | 46 | | 0,75 | 71 | | 1 | 70 | | 1,5 | 80 | | 2 | 79 | | 2,5 | 77 | | 3 | 73 | | 4 | 64 | | 5 | 45 | | 6 | 33 | |  |  |