

## MULTIMEDIA APPENDIX 2

### Predictive equations used to estimate 24 hour salt intake (g) from spot urine samples

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#### Kawasaki [1]

Male  $2.54 \div 1000 \times 23 \times 16.3 \times \{\text{spot Na (mmol/l)} / [\text{spot Cr (mg/dl)} \times 10] \times [-12.63 \times \text{age (years)} + 15.12 \times \text{weight (kg)} + 7.39 \times \text{height (cm)} - 79.9]\}^{0.5}$

Female  $2.54 \div 1000 \times 23 \times 16.3 \times \{\text{spot Na (mmol/l)} / [\text{spot Cr (mg/dl)} \times 10] \times [-4.72 \times \text{age (years)} + 8.58 \times \text{weight (kg)} + 5.09 \times \text{height (cm)} - 74.5]\}^{0.5}$

#### Tanaka [2]

$2.54 \div 1000 \times 23 \times 21.98 \times \{\text{spot Na (mmol/l)} / [\text{spot Cr (mg/dl)} \times 10] \times [-2.04 \times \text{age (years)} + 14.89 \times \text{weight (kg)} + 16.14 \times \text{height (cm)} - 2244.45]\}^{0.392}$

#### Mage [3, 4]

Male  $2.54 \div 1000 \times 23 \times [\text{spot Na (mmol/L)} / (\text{spot Cr (mg/dL)} \times 10)] \times \{0.00179 \times [140 - \text{age (y)}] \times [\text{weight (kg)}^{1.5} \times \text{height (cm)}^{0.5}] \times [[1 + 0.18 \times A] \times [1.366 - 0.0159 \times \text{BMI (kg/m}^2)]]\}$ , where A is African American or black race = 1, other race = 0.

Female  $2.54 \div 1000 \times 23 \times [\text{spot Na (mmol/L)} / (\text{spot Cr (mg/dL)} \times 10)] \times \{0.00163 \times [140 - \text{age (y)}] \times [\text{weight (kg)}^{1.5} \times \text{height (cm)}^{0.5}] \times [[1 + 0.18 \times A] \times [1.429 - 0.0198 \times \text{BMI (kg/m}^2)]]\}$ , where A is African American or black race = 1, other race = 0.

#### Toft [5]

Male  $2.54 \div 1000 \times 23 \times 33.56 \times \{\text{spot Na (mmol/L)} / \text{spot Cr (mg/dL)} \times [-7.54 \times \text{age (years)} + 14.15 \times \text{weight (kg)} + 3.48 \times \text{height (cm)} + 423.15]\}^{0.345}$

Female  $2.54 \div 1000 \times 23 \times 52.65 \times \{\text{spot Na (mmol/L)} / \text{spot Cr (mg/dL)} \times [-6.13 \times \text{age (years)} + 9.97 \times \text{weight (kg)} + 2.45 \times \text{height (cm)} + 342.73]\}^{0.196}$

#### INTERSALT with Potassium [6]

##### North America

Male  $2.54 \div 1000 \times 23 \times \{25.46 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K (mmol/L)}] + [4.10 \times \text{BMI (kg/m}^2)] + [0.26 \times \text{age (y)}]\}$

Female  $2.54 \div 1000 \times 23 \times \{5.07 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K (mmol/L)}] + [2.39 \times \text{BMI (kg/m}^2)] + [2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 (y)]\}$

##### Northern Europe

Male  $2.54 \div 1000 \times 23 \times \{23.17 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K (mmol/L)}] + [4.10 \times \text{BMI (kg/m}^2)] + [0.26 \times \text{age (y)}]\}$

Female  $2.54 \div 1000 \times 23 \times \{15.73 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K (mmol/L)}] + [2.39 \times \text{BMI (kg/m}^2)] + [2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 (y)]\}$

$$[2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 \text{ (y)}]$$

**Eastern Europe**

Male

$$2.54 \div 1000 \times 23 \times \{39.56 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K (mmol/L)}] + [4.10 \times \text{BMI (kg/m}^2\text{)}] + [0.26 \times \text{age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{16.94 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K (mmol/L)}] + [2.39 \times \text{BMI (kg/m}^2\text{)}] + [2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 \text{ (y)}]\}$$

**Southern Europe**

Male

$$2.54 \div 1000 \times 23 \times \{23.08 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K (mmol/L)}] + [4.10 \times \text{BMI (kg/m}^2\text{)}] + [0.26 \times \text{age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{23.79 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K (mmol/L)}] + [2.39 \times \text{BMI (kg/m}^2\text{)}] + [2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 \text{ (y)}]\}$$

**Western Europe**

Male

$$2.54 \div 1000 \times 23 \times \{17.05 + [0.46 \times \text{spot Na (mmol/L)}] - [2.75 \times \text{spot Cr (mmol/L)}] - [0.13 \times \text{spot K (mmol/L)}] + [4.10 \times \text{BMI (kg/m}^2\text{)}] + [0.26 \times \text{age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{12.82 + [0.34 \times \text{spot Na (mmol/L)}] - [2.16 \times \text{spot Cr (mmol/L)}] - [0.09 \times \text{spot K (mmol/L)}] + [2.39 \times \text{BMI (kg/m}^2\text{)}] + [2.35 \times \text{age (y)}] - [0.03 \times \text{age}^2 \text{ (y)}]\}$$

**INTERSALT without Potassium [6]****North America**

Male

$$2.54 \div 1000 \times 23 \times \{23.51 + [0.45 \times \text{spot Na (mmol/L)}] - [3.09 \times \text{spot Cr (mmol/L)}] + [4.16 \times \text{BMI (kg/m}^2\text{)}] + [0.22 \times \text{Age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{3.74 + [0.33 \times \text{spot Na (mmol/L)}] - [2.44 \times \text{spot Cr (mmol/L)}] + [2.42 \times \text{BMI (kg/m}^2\text{)}] + [2.34 \times \text{Age(y)}] - [0.03 \times \text{Age}^2 \text{(y)}]\}$$

**Northern Europe**

Male

$$2.54 \div 1000 \times 23 \times \{20.93 + [0.45 \times \text{spot Na (mmol/L)}] - [3.09 \times \text{spot Cr (mmol/L)}] + [4.16 \times \text{BMI (kg/m}^2\text{)}] + [0.22 \times \text{Age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{14.47 + [0.33 \times \text{spot Na (mmol/L)}] - [2.44 \times \text{spot Cr (mmol/L)}] + [2.42 \times \text{BMI (kg/m}^2\text{)}] + [2.34 \times \text{Age(y)}] - [0.03 \times \text{Age}^2 \text{(y)}]\}$$

**Eastern Europe**

Male

$$2.54 \div 1000 \times 23 \times \{39.58 + [0.45 \times \text{spot Na (mmol/L)}] - [3.09 \times \text{spot Cr (mmol/L)}] + [4.16 \times \text{BMI (kg/m}^2\text{)}] + [0.22 \times \text{Age (y)}]\}$$

Female

$$2.54 \times 23 \div 1000 \times \{17.02 + [0.33 \times \text{spot Na (mmol/L)}] - [2.44 \times \text{spot Cr (mmol/L)}] + [2.42 \times \text{BMI (kg/m}^2\text{)}] + [2.34 \times \text{Age(y)}] - [0.03 \times \text{Age}^2 \text{(y)}]\}$$

**Southern Europe**

Male

$$2.54 \div 1000 \times 23 \times \{20.86 + [0.45 \times \text{spot Na (mmol/L)}] - [3.09 \times \text{spot Cr (mmol/L)}] + [4.16 \times \text{BMI (kg/m}^2\text{)}] + [0.22 \times \text{Age (y)}]\}$$

Female

$$2.54 \div 1000 \times 23 \times \{21.98 + [0.33 \times \text{spot Na (mmol/L)}] - [2.44 \times \text{spot Cr (mmol/L)}] + [2.42 \times \text{BMI (kg/m}^2\text{)}] + [2.34 \times \text{Age(y)}] - [0.03 \times \text{Age}^2 \text{(y)}]\}$$

## Western Europe

Male	$2.54 \div 1000 \times 23 \times \{14.6 + [0.45 \times \text{spot Na (mmol/L)}] - [3.09 \times \text{spot Cr (mmol/L)}] + [4.16 \times \text{BMI (kg/m}^2)] + [0.22 \times \text{Age (y)}]\}$
Female	$2.54 \div 1000 \times 23 \times \{11.38 + [0.33 \times \text{spot Na (mmol/L)}] - [2.44 \times \text{spot Cr (mmol/L)}] + [2.42 \times \text{BMI (kg/m}^2)] + [2.34 \times \text{Age(y)} - [0.03 \times \text{Age}^2(\text{y})]\}$

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## REFERENCES

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