References

References


Chinkes D, deMelo E, Zhang X-J (1995) Increased plasma glucose clearance in sepsis is due to increased exchange between plasma and interstitial fluid. Shock 4:356–360


References


Ishihara H, Suzuki A, Okawa H, Sakai I, Tsubo T, Matsuki A (2000c) The initial distribution volume of glucose rather than indocyanine green derived plasma volume is...
correlated with cardiac output following major surgery. Intensive Care Med 26:1441–1448


References


White HL, Rolf D (1958) Comparison of various procedures for determining sucrose and inulin space in the dog. J Clin Invest 37:8–19


Zweens J, Frankena H (1980) Sucrose as an indicator for the measurement of the extracellular fluid volume in man. Proceedings of the 21st Dutch Federation Meeting, Nijmengen, the Netherlands
Subject Index

a
accuracy of ICG-derived plasma volume 63
acute adrenal insufficiency 129
acute insulin response (AIR) 10, 11
acute myocardial infarction 80
adverse reaction 59
Akaike’s information criterion (AIC) 25, 27, 64
albumin 90
albumin leakage 86 See also protein leakage
APACHE II score 64
approximated IDVG 31–33, 130, 133
arterial hematocrit (Hct) 121
arterial fibrillation 135

b
basal plasma glucose level 29
bedside reflectance glucometer 32
bilirubin concentration 64
blood flow 19
burn 71
burned patient 78

capillary permeability 4, 48
capillary protein leakage See protein leakage
capillary filling pressures 137
cardiac output (CO) 43, 49, 50, 62, 75, 106
cardiac preload 56, 116, 123, 137
cardiac surgery 31, 85, 128, 132
central extracellular fluid (ECF) 51, 74, 143
central venous pressure (CVP) 55, 62
chronic renal failure 28
circulating blood volume (CBV) 4, 54, 137, 143
congestive heart failure (CHF) 51, 52, 57
$^{51}$Cr-labeled red cell 59, 92, 117, 140
dilution volumetry 1
disappearance rate of glucose 14, 27, 28, 31, 66, 79
disappearance rate of indocyanine green (ICG) 31, 142
distribution phase 2
distribution volume 1, 140
double indicator dilution technique 47
duration of injection 6
echocardiography 134, 135, 137
elimination phase 2
endotoxin 74
esophagectomy 53, 110
estimated blood volume 87, 94
estimated red cell volume 87
exclusion criteria for IDVG determination 23
extracellular fluid (ECF) volume 9, 39
extravascular lung water (EVLW) 42, 45, 47, 104

f
fast pool 18
fluid accumulation 52
fluid volume loading 41, 42, 62, 138
fluid volume therapy 142
Frank-Starling relationship 57

g
global end-diastolic volume (GEDV) 106
gluconeogenesis 14
glucose analyzer 32
glucose disappearance rate. See disappearance rate of glucose
glucose metabolism 19
glucose space 9, 10, 12
glucose uptake 17, 19, 20
glycosuria 20

h
half-life of sucrose 47
hematocrit (Hct) 34, 66
hemorrhage 39, 40, 49, 60
hemorrhagic shock 14
hepatic failure 28
hepatic glucose output 20, 21
histamine 75, 77
hyperglycemia 14, 25
hyperosmotic state 47
hypovolemic hypotension 110, 124
indicator substance 1
indirect measurement of red cell volume (RCV) 118
indocyanine green (ICG) 4, 59, 90
indocyanine green derived plasma volume (Vd-ICG, PV-ICG) 54, 61, 62, 66, 121
induction of anesthesia 87, 88
initial distribution volume 3, 49
initial distribution volume of glucose (IDVG) 17, 23, 24, 45, 55, 49, 61, 62, 66
initial distribution volume of sucrose (IDVS) 45
insulin 18
insulinogenic index 13, 40
interassay coefficients of variation 34
interstitial glucose concentration 19
intrathoracic blood volume (ITBV) 106, 139

k
K value 10 See also disappearance rate of glucose
Ke-glucose 66 See also disappearance rate of glucose
Ke-ICG 68, 79 See also disappearance rate of indocyanine green (ICG)

l
lactated Ringer’s solution 44
left ventricular end-diastolic area 137
low cardiac output (CO) state 5, 68
low molecular weight dextran 41

m
mass concentration of water 35
mean arterial pressure (MAP) 55, 62
mean transit time (MTT) 5, 106, 139
mixing period 4
mixing within the central compartment 24
models for glucose distribution and utilization 17
molality of glucose 37

n
normal IDVG 26
normal ITBV 107
normal plasma volume 26

o
obese patient 28
one-compartment model 1, 12, 24, 25, 60
overestimation of initial distribution volume 6
overestimation of plasma volume 71, 74, 89

p
phenolamine 93
plasma 18
plasma cortisol level 131
plasma glucose 37, 45, 66
plasma glucose clearance rate 84
See also disappearance rate of glucose
plasma protein concentration 34
plasma volume 24
postoperative bleeding 132
postoperative hypotension 131, 132
postoperative IDVG 54
prediction of hypovolemic hypotension 126
propofol 132
protein leakage 90, 91, 98
pulmonary artery wedge pressure 55, 62
pulmonary edema 72
pulmonary embolism 134
pulse dye densitometry 140 See also ICG- pulse dye densitometry
PV-ICG See indocyanine green-derived plasma volume

PV-ICG/IDVG ratio 64, 66, 79, 81, 85, 88, 92, 98

r
rapid exchanging compartment 24
rapid exchanging pool 19
recirculation of ICG 67
red cell volume (RCV) 55, 59, 117
red cells 37, 76
repeatability of IDVG determination 28
reproducibility of IDVG 31
residual sum of squares 25
right ventricular dysfunction 134
right ventricular ejection fraction 139
right ventricular end-diastolic volume 139

s
sampling timing 26
single transpulmonary dilution 106, 139
slow pool 18, 19
stroke volume variation 138
sucrose 39, 42, 45
systolic pressure variation 138

T
thoracic electrical bioimpedance (TEB) 99
thoracic fluid content (TFC) 99, 103
three-compartment model 17, 18
total distribution volume of glucose 17
transient hyperglycemia 25
trimetaphan 10
tricuspid regurgitation 140
two-compartment model 2, 18, 25, 60

u
urinary loss of glucose 14, 20
urine output 42, 45
vascular leak syndrome 74
Vd-ICG See indocyanine green-derived plasma volume
Vd-ICG/IDVG ratio 75, 77 See also PV-ICG/IDVG ratio
velocity of glucose transfer 5

whole blood glucose 37
whole body hematocrit (Hct) 121