

Index

Note: Page numbers of article titles are in **boldface** type.

A

Accumetrics device, for platelet function testing, 544–546
Activated clotting time, 548–549
Acute coronary syndromes, cardiac marker testing for, 561–568
Adenovirus testing, 611
Aggregation, platelet, 543
Amniotic fluid, microscopic detection of, 575
Anticoagulation therapy, monitoring of. *See* Coagulation testing.
Aspirin resistance, 544–546
Automation, of molecular diagnostic tests, 555–560

B

Basic metabolic panel, 608–609
Billing, 446–447
Blood, occult. *See* Fecal occult blood testing.
B-natriuretic peptide testing, for congestive heart failure, 568–569

C

Cancer, colorectal, screening for. *See* Fecal occult blood testing.
Cardiac marker testing, **561–571**
 for acute coronary syndromes, 561–568
 for congestive heart failure, 568–569
 in emergency department, 485
Casts, urine, 579
Cellulose tape method, for pinworm collection, 577–578
Centralization, of POCT, 436–439
Chest pain, cardiac marker testing for, 561–568
Chromosomal instability, in cancer, fecal DNA testing for, 530, 533–536
Clearview HIV tests, 492–494
Clinical Laboratory Improvement Amendments (CLIA) of 1988 certificates
 categories of, 464–465
 CMS-deemed status of, 468–472, 474–475
 control procedures for, 467, 473
 inspections for, 474
 moderate-complexity testing under, 466, 470–472
 personnel involved in, 466, 469, 471
 procedure manuals for, 467, 469–470
 proficiency testing for, 469, 471, 473
 quality systems for, 473–474

Clinical (*continued*)

- verification of performance specifications for, 473
- waived testing under, 466, 468–469
- Clinical Laboratory Standards Institute, guidelines of, 441, 444–445
- Clopidogrel resistance, 544–546
- CoaguChek devices, 546–547
- Coagulation testing, 484, **543–553**
 - activated clotting time, 548–549
 - D-dimer, 485–487, 547–548
 - platelet function, 543–546
 - prothrombin time, 546–547
- Cola requirements, 468–472, 475–476
- College of American Pathologists
 - competency assessment guidelines of, 442
 - laboratory accreditation program of, 468–472, 475
- Colonoscopy, 530, 536–537
- Colorectal cancer, screening for. *See* Fecal occult blood testing.
- Competency
 - in microscopy, 580
 - management of, 441–444
- Compliance, with regulations, 445–446
- Computed tomography colonography, 530, 537
- Congestive heart failure, cardiac markers for, 568–569
- Connectivity Industry Consortium, 444–445
- Connectivity standard, for informatics, 455–457
- Consumables, costs of, 479–482
- Continuous process improvement, 435
- Contrast agents, nephrotoxicity of, creatinine testing for, 609
- Costs, 479–482
- Creatine kinase isoenzymes, for acute coronary syndromes, 561–568
- Creatinine testing, 607–609
- Culture, influenza virus, 610

D

- Data management, 444–445
 - historical view of, 449–453
 - networks for, 453–454
 - standards for, 454–457
- D-dimer testing, 485–487, 547–548
- Decentralization, of POCT, 436–439
- Deep venous thrombosis, D-dimer testing for, 485–487, 547–548
- Diabetes mellitus, tight glycemic control for, **511–522**
- Direct fluorescent antibody assay, for influenza virus, 610–611
- Disasters, POCT in, **583–605**
 - current use of, 592, 594–600
 - goals of, 583–584
 - in small-world networks, 602
 - needs assessment survey for, 584–585
 - preparedness for, 597, 601–602
 - results of, 585–593

DNA testing, for fecal occult blood, 530, 533–536
Documentation, 444–445, 507
Drug(s), metabolism of, molecular studies of, 555–560
Drug-of-abuse testing, **503–509**
 analytical performance of, 506
 clinical utility of, 503–504
 devices for, 504
 methodology for, 505–506
 outcomes of, 487
 regulatory compliance in, 507
 result interpretation and documentation of, 507
 specimen types for, 504–505
 test menu for, 505

E

Electronic medical records, 444–445, 451–453
Embolism, pulmonary, D-dimer testing for, 485–487
Enterobiasis, 577–578
Enzyme immunoassays, for influenza virus, 610–611
Erythrocyte agglutination assay, for D-dimer, 547–548
Extensible Markup Language, 455

F

Fecal leukocytes, microscopic examination of, 575
Fecal occult blood testing, for colorectal cancer screening, **523–541**
 diagnostic evaluation following, 526–537
 DNA testing, 530, 533–536
 guaiac methods, 526–531, 535
 immunochemical test, 531–533
Fern test, 575
Fetal fibronectin testing, 611–612
Fibronectin, fetal, testing of, 611–612
First Check test, for drugs of abuse, 504
Flexible sigmoidoscopy, 536
Fluorescence immunoassay, for D-dimer, 547–548

G

Glucose testing
 for tight control, **511–522**
 history of, 423–424
 home, 484
Guaiac tests, for fecal occult blood, 526–531, 535

H

Health Insurance Portability and Accountability Act, compliance with, 447
Heart failure, congestive, cardiac markers for, 568–569
Hemagglutinin antigen, of influenza virus, testing for, 609–611

- Hematuria, microscopy in, 578–579
- Hemocult tests, for fecal occult blood, 526–531, 535
- Hemostasis, monitoring of, 488
- Heparin monitoring, activated clotting time for, 548
- HIV testing, **491–501**
 - for confirmation, 494–495
 - in occupational setting, 496
 - in outreach programs, 496–497
 - outcomes of, 487–488
 - performance of, 492–494
 - peripartum, 495–496
 - tests approved for, 492–494
- Home testing, 429, 612–613
 - of coagulation, 484
 - of drugs of abuse, 504
 - of glucose, 484
 - of prothrombin time, 546–547
- Hospital patients, billing for, 446–447
- Human immunodeficiency virus testing. *See* HIV testing.
- Hurricane Katrina, POCT in, 590, 593, 595–596, 602
- Hyperglycemia, tight control of, **511–522**

I

- Immunoassays, for drugs of abuse, 505–506
- Immunochemical test, for fecal occult blood, 531–533
- Immunoturbidimetric assay, for D-dimer, 548
- Infections
 - fecal leukocyte examination in, 575
 - in disasters. *See* Disasters.
 - molecular diagnosis of, 555–560
- Influenza testing, 584, 595, 597–600, 609–611
- Informatics, **449–461**. *See also* Data management.
 - connectivity standard for, 455–457
 - data generation in, 458
 - future needs of, 458–460
 - historical view of, 449–453
 - networks in, 453–454
 - standards for, 454–457
- Inspections, 439, 441, 469, 474
- Intensive care, glucose testing in, **511–522**
- Intercept test, for drugs of abuse, 504
- International normalized ratio testing, 546–547

J

- Joint Commission
 - accreditation by, 468–472, 475
 - affiliation with, 439
 - competency assessment guidelines of, 442

L

- Labor costs, 480–481
- Laboratory management, **433–448**
 - billing in, 446–447
 - Health Insurance Portability and Accountability Act compliance in, 447
 - initiating new program for, 439–446
 - of competency, 441–444
 - of data management, 444–445
 - of documentation, 444–445
 - of quality assurance, 445–446
 - of training, 441–444
 - organizational structure for, 434, 436–439
 - team for, 433–434
- Latex agglutination assay, for D-dimer, 548
- Leukocytes, fecal, microscopic examination of, 575
- Local area networks, 454

M

- Management, laboratory. *See* Laboratory management.
- Methicillin, *Staphylococcus aureus* resistant to, molecular studies of, 555–560
- Microsatellite instability, in cancer, fecal DNA testing for, 530, 533–536
- Microscopy, **573–582**
 - competency for, 580
 - coordination within hospital, 579–580
 - criteria for, 574
 - fern test, 575
 - of fecal leukocytes, 575
 - of pinworms, 577–578
 - of seminal fluid, 576–577
 - of urine sediment, 578–579
 - procedures for, 574–575
 - regulations on, 573
- Miniaturization, of molecular assays, **555–560**
- Moderate-complexity testing, under CLIA, 466, 470–472
- Molecular diagnostic testing, **555–560**
- Multispot HIV test, 492–494
- Multitasking, POCT role in, 430
- Myocardial infarction, cardiac marker testing for, 561–568
- Myoglobin testing, for acute coronary syndromes, 561–568

N

- National Institute of Drug Abuse, test menu of, 505
- Natriuretic peptide testing, for congestive heart failure, 568–569
- Networks, for informatics, 453–454
- Neuraminidase antigen, of influenza virus, testing for, 609–611
- Nitrazine paper, in fern test, 575
- Normoglycemia in Intensive Care Evaluation–Survival Using Glucose Algorithm Regulation trial, 514
- Nucleic acid, in molecular diagnosis, 555–560

O

- Occult blood. See Fecal occult blood testing.
- Occupational exposure, HIV testing for, 496
- OnTrak TesTcard 9, for drugs of abuse, 504
- OraQuick HIV tests, 492–494, 496–497
- Outcomes, 482–488
 - classification of, 482–483
 - of cardiac marker testing, 485
 - of coagulation testing, 484
 - of D-dimer testing, 485–487
 - of drugs-of-abuse testing, 487
 - of glucose testing, 484
 - of hemostasis testing, 488
 - of HIV testing, 487–488
 - of home self-testing, 484
- Outpatient clinics, billing in, 446
- Over-the-counter tests, 428

P

- Personnel, for CLIA certificates, 466, 469, 471
- PFA-100 platelet function analyzer, 543–546
- Physician's office, billing in, 446
- Pinworm examination, 577–578
- Platelet function testing, 543–546
- POCT. See Point-of-care testing.
- Point-of-care testing
 - billing for, 446–447
 - centralized versus decentralized, 436–439
 - continuous process improvement effort in, 435
 - cost of, 479–482
 - current status of, 426–428
 - drug-of abuse, 487, **503–509**
 - for cardiac markers, 485, **561–571**
 - for coagulation status, 484, **543–553**
 - for creatinine, 607–609
 - for disasters, **583–605**
 - for fecal occult blood, **523–541**
 - for fetal fibronectin, 611–612
 - for glucose, 423–424, 484, **511–522**
 - for HIV, **491–501**
 - for influenza, 584, 595, 597–600, 609–611
 - for microscopic procedures, **573–582**
 - for molecular diagnosis, **555–560**
 - future of, 429–432
 - historical perspective of, 423–425
 - in home. See Home testing.
 - informatics for, **449–461**
 - management of, **433–448**
 - outcomes of, 482–488
 - overview of, **421–432**

- policies and procedures for, 435
- program for
 - initiation of, 439–446
 - structure of, 434, 436–439
- quality control in, 426, 435–436, 445–446, 470, 473–474
- regulation of. *See* Regulations.
- survey of, 434–435
- tests available at, 427
- utility of, 428–429

Polymerase chain reaction, for influenza virus, 610–611

Pregnancy

- fetal fibronectin testing in, 611–612
- HIV testing in, 495–496

Procedure manuals, 467, 469–470

Proficiency testing, 469, 471, 473

Profile-II test, for drugs of abuse, 504

Prothrombin time, 546–547

ProTime devices, 546–547

Pulmonary embolism, D-dimer testing for, 485–487

Pyuria, microscopy in, 578–579

Q

Quality control, 426, 435–436, 445–446, 470, 473–474

R

Radial partition immunoassay, for D-dimer, 548

Radiology, toxic contrast agents in, creatinine testing for, 609

Rapid Drug Screen, 504

Regulations, 425–426, **463–478**

- CLIA certificates, 464–475

- COLA requirements, 475–476

- compliance with, 445–446

- coordination of, 476

- for drug-of-abuse testing, 507

- for hospitals, 477

- for independent training sites, 476–477

- for microscopy, 573

- inspections in, 439, 441, 469, 474

- Joint Commission, 475

- Laboratory Accreditation Program of the College of American Pathologists, 475

- on competency, 442–444

Remote Automated Laboratory System, 459

Reproductive Laboratory Accreditation Program, 577

Respiratory syncytial virus testing, 611

Reveal G3 HIV test, 492–494

S

Saliva, for drug testing, 504–505

Sandwich immunoassay, for D-dimer, 548

Seminal fluid, microscopic examination of, 576–577

Sigmoidoscopy, 536
Small-world networks, 602
Standards, for informatics, 454–457
Staphylococcus aureus, methicillin-resistant, molecular diagnosis of, 555–560
Status DS test, for drugs of abuse, 504
Stress hyperglycemia, glucose testing for, **511–522**
SWUBE device, for pinworm collection, 578

T

Team approach, to POCT, 433–434
Telcor system, 459
Thermal cycling, in molecular diagnosis, 558
Thrombosis, D-dimer testing for, 485–487, 547–548
Training
 independent sites for, 476–477
 management of, 441–444
Triage tests, for drugs of abuse, 504, 507
Troponin testing, for acute coronary syndromes, 561–568
Tsunami disaster of 2004, POCT in, 590, 593, 602
Turnaround time, 481

U

Uni-Gold Recombigen HIV test, 492–494
Urine
 for drug testing, 504
 sediment from, microscopic examination of, 578–579

V

VerifyNow device, for platelet function testing, 544

W

Waived testing, 466, 468–469
Wireless networks, 453–454