

Disciplina MCP5875
Inovações no Diagnóstico e Tratamento das Arritmias, Síncope e Prevenção de Morte Súbita Cardíaca

Área de Concentração: 5131

Criação: 20/01/2022

Ativação: 20/01/2022

Nr. de Créditos: 2

Carga Horária:

Teórica (por semana)	Prática (por semana)	Estudos (por semana)	Duração	Total
5	10	15	1 semanas	30 horas

Docentes Responsáveis:

Denise Tessariol Hachul

Mauricio Ibrahim Scanavacca

Francisco Carlos da Costa Darrieux

Objetivos:

Atualização no estado da arte dos métodos diagnósticos e terapêuticos das arritmias, síncopes e disautonomias, assim como de prevenção de morte súbita cardíaca. Ao final do curso intenciona-se que o aluno esteja apto a interpretar, à luz da metodologia científica e com amadurecimento crítico, os procedimentos de investigação e tratamento das arritmias hereditárias e adquiridas, síncopes cardíacas e disautonomias cardiovasculares, com ênfase no reconhecimento de suas potencialidades e limitações.

Justificativa:

O diagnóstico, a estratificação de risco e o tratamento dos transtornos do ritmo cardíaco têm sido continuamente atualizados nos últimos tempos, como consequência do desenvolvimento de novas tecnologias, que propiciaram maior entendimento de seu substrato anatômico, eletrofisiológico, autonômico e, mais recentemente, das suas bases moleculares. Essas ferramentas, em constante desenvolvimento, propiciam diagnósticos cada vez mais precoces e precisos, assim como tratamentos preventivos e definitivos.

Conteúdo:

O curso será dividido em 4 módulos. Os professores proferirão, aulas teóricas sobre o estado da arte dos temas selecionados e os alunos elaborarão seminários que lhes forem solicitados. Ao final, haverá avaliação baseada no desempenho dos mesmos nos seminários (conteúdo e didática) e participação nas discussões.

Forma de Avaliação:

- Desempenho no preparo, conteúdo e apresentação dos seminários. Frequência Discussões em grupo

Observação:

Número mínimo de alunos: 5 / Número máximo de alunos: 10.

Bibliografia:

1. Josephson ME. Clinical Cardiac Electrophysiology. 3rd ed. Philadelphia: Lippincott Williams & Wilkins; 2002: 812–830.
2. De Vreede-swagemakers JJ, Gorgels AP, Dubois-Arbouw WJ, et al. Out-of hospital cardiac arrest in the 1990's: a population-based study in the Maastricht area on incidence, characteristics and survival. *J Am Coll Cardiol.* 1997; 30: 1500–1505.
3. Waalewijn RA, de Vos R, Koster RW. Out-of-hospital cardiac arrests in Amsterdam and its surrounding areas: results from the Amsterdam resuscitation study (ARREST) in 'Utstein' style. *Resuscitation.* 1998;38(3):157-67
4. Jouven X, Desnos M, Guerot C, et al. Predicting sudden death in the population: the Paris prospective study I. *Circulation.* 1999; 99: 1978–1983.
5. Zhi-Jie Z, Croft JB, Giles WH, et al. Sudden cardiac death in the United States, 1989 to 1998. *Circulation.* 2001; 104:2158-2163.
6. Myerburg RJ, Castellanos A. Cardiac arrest and sudden cardiac death. In: Braunwald E, Zipes DP, Libby P, eds. *Heart Disease: A Textbook of Cardiovascular Medicine.* 6th ed. Philadelphia: WB Saunders; 2001: 890–931
7. Spooner PM, Albert C, Benjamin EJ, et al. Sudden cardiac death, genes and arrhythmogenesis: consideration of new population and mechanistic approaches from a National Heart, Lung and Blood Institute workshop, part I. *Circulation.* 2001; 103: 2361-2364.
8. Spooner PM, Albert C, Benjamin EJ, et al. Sudden cardiac death, genes and arrhythmogenesis: consideration of new population and mechanistic approaches from a National Heart, Lung and Blood Institute workshop, part II. *Circulation.* 2001; 103: 2447–2452.
9. Eisenberg MS, Mengert TJ. Cardiac resuscitation. *N Engl J Med.* 2001; 344: 1304– 1313.
10. Becker LB, Weisfeldt ML, Weil MH, et al. The PULSE initiative: scientific priorities and strategic planning for resuscitation research and life saving therapies. *Circulation.* 2002; 105: 2562–2570.
11. Wellens HJJ, Gorgels AP, De Munter H. Cardiac arrest outside of a hospital: how can we improve results of resuscitation? *Circulation.* 2003; 107: 1948–1950.
12. Pires LA, Lehmann MH, Buxton AE, et al. Differences in inducibility and prognosis of in-hospital versus out-of-hospital identified non sustained ventricular tachycardia in patients with coronary artery disease: clinical and trial design implications. *J Am Coll Cardiol.* 2001; 38: 1156-1162.
13. Thomas KE, Josephson ME. The role of electrophysiology study in risk stratification of sudden cardiac death. *Prog Cardiovasc Dis.* 2008;51(2):97-105.
14. Bailey JJ, Berson AS, Handelsman H, et al. Utility of current risk stratification tests for predicting major arrhythmic events after myocardial infarction. *J Am Coll Cardiol.* 2001; 38: 1902–1911.
15. Beta-Blocker Heart Attack Trial Research Group. A randomized trial of propranolol in patients with acute myocardial infarction, I: mortality results. *JAMA.* 1982; 247: 1707–1714.
16. Chadda K, Goldstein S, Byington R, et al. Effect of propranolol after acute myocardial infarction in patients with congestive heart failure. *Circulation.* 1986; 73: 503–510.
17. Kendall MJ, Lynch KP, Hjalmarson, et al. Beta blockers and sudden cardiac death. *Ann Intern Med.* 1995; 123: 358–367.
18. Echt DS, Liebson PR, Mitchell LB, et al. Mortality and morbidity in patients receiving encainide, flecainide, or placebo: the Cardiac Arrhythmia Suppression Trial. *N Engl J Med.* 1991; 324: 781-788.
19. Doval HC, NUI DR, Grancelli HO, et al. Randomized trial of low dose amiodarone in severe congestive heart failure: Grupo de Estudio de la Sobrevida en la Insuficiencia Cardiaca en Argentina (GESICA). *Lancet.* 1994; 344: 493–498.
20. Julian DG, Camm AJ, Frangin G, et al. Randomised trial of effect of amiodarone on mortality in patients with left-ventricular dysfunction after recent myocardial infarction: EMIAT. European Myocardial infarct Amiodarone Trial Investigators. *Lancet.* 1997; 349: 667–674.
21. Boutitie F, Boissel JP, Connolly SJ, et al. Amiodarone interaction with beta blockers: analysis of the merged EMIAT (European Myocardial infarct Amiodarone Trial) and CAMIAT (Canadian Amiodarone Myocardial Infarction Trial) databases. The EMIAT and CAMIAT Investigators. *Circulation.* 1999; 99: 2268–75.
22. Hine L, Laird N, Hewitt P, et al. Meta-analysis of empirical long-term antiarrhythmic therapy after myocardial infarction. *JAMA.* 1989; 262: 3037-3040.
23. Cardiac Arrest in Seattle: Conventional Versus Amiodarone Drug Evaluation (the CASCADE study). *Am J Cardiol.* 1991 Mar 15;67(7):578-84.
24. Greene HL. The CASCADE Study: randomized antiarrhythmic drug therapy in survivors of cardiac arrest in Seattle. CASCADE Investigators. *Am J Cardiol.* 1993;72(16):70F-74F.
25. Anderson JL. Contemporary clinical trials in ventricular tachycardia and fibrillation: implications of ESVEM, CASCADE, and CASH for clinical management. *J Cardiovasc Electrophysiol.* 1995;6:880-6.
26. Lau EW, Griffith MJ, Pathmanathan RK, et al. The Midlands Trial of Empirical Amiodarone versus Electrophysiology-guided Interventions and Implantable Cardioverter-defibrillators (MAVERIC): a multi-centre prospective randomised clinical trial on the secondary prevention of sudden cardiac death. *Europace.* 2004;6(4):257-66.
27. Pitt B, Remme W, Zannad F, et al, for the Eplerenone Post-Acute Myocardial Infarction Heart Failure Efficacy and Survival Study Investigators. Eplerenone, a selective aldosterone blocker, in patients with left ventricular dysfunction after myocardial infarction. *N Engl J Med.* 2003; 348: 1309–1321.
28. Leaf A, Kang JX, Xiao YF, Billman GE. Clinical prevention of sudden cardiac death by n-3 polyunsaturated fatty acids and mechanism of prevention of arrhythmias

by n-3 fish oils. *Circulation*. 2003;107(21):2646-52. 29. Guiraudon G, Fontaine G, Frank R, et al. Encircling endocardial ventriculotomy: Vanew surgical treatment for life-threatening ventricular tachycardias resistant to 30. Josephson ME, Harken AH, Horowitz LN. Endocardial excision: a new surgical technique for the treatment of recurrent ventricular tachycardia. *Circulation*. 1979; 60: 1430-1439. 31. Sosa E, Scanavacca M, d'Avila A, et al. Long-term results of visually guided left ventricular reconstruction as single therapy to treat ventricular tachycardia associated with postinfarction antero-septal aneurysm. *J Cardiovasc Electrophysiol*. 1998;9(11):1133-43. 32. Sosa E, Scanavacca M, d'Avila A, Pilleggi F. A new technique to perform epicardial mapping in the electrophysiology laboratory. *J Cardiovasc Electrophysiol*. 1996;7(6):531-6. 33. Reddy VY, Reynolds MR, Neuzil P, et al. Prophylactic catheter ablation for the prevention of defibrillator therapy. *N Engl J Med*. 2007;357(26):2657-65. 34. Stevenson WG, Wilber DJ, Natale A, et al. Irrigated radiofrequency catheter ablation guided by electroanatomic mapping for recurrent ventricular tachycardia after myocardial infarction: the multicenter thermocool ventricular tachycardia ablation trial. *Circulation*. 2008;118(25):2773-82. 35. Kuck KH, Schaumann A, Eckardt L, et al. Catheter ablation of stable ventricular tachycardia before defibrillator implantation in patients with coronary heart disease (VTACH): a multicentre randomised controlled trial. *Lancet*. 2010;375(9708):31-40. 36. Sacher F, Roberts-Thomson K, Maury P, et al. Epicardial ventricular tachycardia ablation a multicenter safety study. *J Am Coll Cardiol*. 2010;55(21):2366-72. 37. Mirowski M, Reid PR, Watkins L, et al. Clinical treatment of life-threatening ventricular tachyarrhythmias with the automatic implantable defibrillator. *Am Heart J*. 1981; 102: 265-270. 38. The Antiarrhythmics Versus Implantable Defibrillators (AVID) Investigators. A comparison of antiarrhythmic-drug therapy with implantable defibrillators in patients resuscitated from near-fatal ventricular arrhythmias. *N Engl J Med*. 1997; 337: 1576-1584. 39. MOSS AJ, Hall WJ, Cannom DS, et al. Improved survival with an implanted defibrillator in patients with coronary artery disease at high risk for ventricular arrhythmia. *N Engl J Med*. 1996; 335: 1933-1940. 40. Bigger JT Jr; Coronary Artery Bypass Graft (CABG) Patch Trial Investigators. Prophylactic use of implanted cardiac defibrillators in patients at high risk for ventricular arrhythmias after coronary-artery bypass graft surgery. *N Engl J Med* 1997;337:1569-75. 41. Buxton AE, Lee KL, Fisher JD, et al. A randomized study of the prevention of sudden death in patients with coronary artery disease. *N Engl J Med*. 1999; 341: 1882-1890. 42. Connolly SJ, Gent M, Roberts RS, et al. Canadian implantable defibrillator study (CIDS): a randomized trial of the implantable cardioverter defibrillator against amiodarone. *Circulation*. 2000; 101: 1297-1302. 43. Moss AJ, Zareba W, Hall WJ, et al, for the Multicenter Automatic Defibrillator Implantation Trial II Investigators. Prophylactic implantation of a defibrillator in patients with myocardial infarction and reduced ejection fraction. *N Engl J Med*. 2002;346: 877-883. 44. Reynolds MR, Josephson ME. MADIT II (second Multicenter Automated Defibrillator Implantation Trial) debate: risk stratification, costs, and public policy. *Circulation*. 2003; 108: 1779-1783. 45. Young JB, Abraham WT, Smith AL, et al, for the Multicenter InSync ICD Randomized Clinical Evaluation (MIRACLE ICD) Trial Investigators. Combined cardiac resynchronization and implantable cardioversion defibrillation in advanced chronic heart failure: the MIRACLE ICD trial. *JAMA*. 2003; 289: 2685- 2694. 46. Salukhe TV, Francis DP, Sutton R. Comparison of medical therapy, pacing and defibrillation in heart failure (COMPANION) trial terminated early; combined biventricular pacemaker-defibrillators reduce all-cause mortality and hospitalization. *Int J Cardiol*. 2003; 87: 119-120. 47. Hohnloser SH, Kuck KH, Dorian P, et al.; DINAMIT Investigators. Prophylactic use of an implantable cardioverter-defibrillator after acute myocardial infarction. *N Engl J Med* 2004;351:2481-8. 48. Nanthakumar K, Epstein AE, Kay GN, et al. Prophylactic implantable cardioverter-defibrillator therapy in patients with left ventricular systolic dysfunction: a pooled analysis of 10 primary prevention trials. *J Am Coll Cardiol* 2004;44: 2166-72. 49. Bardy GH, Lee KL, Mark DB, et al.; Sudden Cardiac Death in Heart Failure Trial. (SCD-HEFT) Investigators. Amiodarone or an implantable cardioverter defibrillator for congestive heart failure. *N Engl J Med* 2005;352:225-37. 50. Goldenberg I, Moss AJ, Hall WJ, et al. Causes and consequences of heart failure after prophylactic implantation of a defibrillator in the multicenter automatic defibrillator implantation trial II. *Circulation*. 2006;113(24):2810-7. 51. Connolly SJ, Dorian P, Roberts RS, et al. Comparison of beta-blockers, amiodarone plus beta-blockers, or sotalol for prevention of shocks from implantable cardioverter defibrillators: the OPTIC Study: a randomized trial. *JAMA*. 2006 Jan 11;295(2):165-71. 52. Maron BJ, Spirito P, Shen WK, et al. Implantable Cardioverter-Defibrillators and Prevention of Sudden Cardiac Death in Hypertrophic Cardiomyopathy. *JAMA*. 2007; 298:405-412. 53. Goldenberg I, Vyas AK, Hall WJ, et al. Risk stratification for primary implantation of a cardioverter-defibrillator in patients with ischemic left ventricular dysfunction. *J Am Coll Cardiol*. 2008;51(3):288-96. 54. Packer DL, Prutkin JM, Hellkamp AS, et al. Impact of implantable cardioverter defibrillator, amiodarone, and placebo on the mode of death in stable patients with heart failure: analysis from the sudden cardiac death in heart failure trial. *Am J Med* 2009;120(22):2170-6. 55. Ip J, Waldo AL, Lip GY, et al. Multicenter randomized study of anticoagulation guided by remote rhythm monitoring in patients with

implantable cardioverter defibrillator and CRT-D devices: Rationale, design, and clinical characteristics of the initially enrolled cohort The IMPACT study. *Am Heart J*. 2009 Sep;158(3):364-370.

56. Probst V, Veltmann C, Eckardt L, et al. Long-term prognosis of patients diagnosed with Brugada syndrome: Results from the FINGER Brugada Syndrome Registry. *Circulation*. 2010;121(5):635-43.
57. Mark DB, Anstrom KJ, McNulty SE, et al. Quality of life effects of automatic external defibrillators in the home: results from the Home Automatic External Defibrillator Trial (HAT). *Am Heart J*. 2010;159(4):627-634.
58. Benjamin EJ, Levy D, Vasiri SM, D'Agostino RB, Belanger AJ, Wolf PA. Independent risk factors for atrial fibrillation in a population-based cohort: the Framingham Heart Study. *JAMA* 1994; 271:840-4.
59. Benjamin EJ, Wolf PA, D'Agostino RB, et al. Impact of atrial fibrillation on the risk of death: the Framingham Heart Study. *Circulation*. 1998;98:946-952.
60. Shiroshita-Takeshita A, Brundel BJ, Nattel S. Atrial fibrillation: basic mechanisms, remodeling and triggers. *J Interv Card Electrophysiol* 2005;13:181-193.
61. Allesie M, Ausma J, Schotten U. Electrical, contractile and structural remodeling during atrial fibrillation. *Cardiovasc Res* 2002;54:230-246.
62. Nattel S. New ideas about atrial fibrillation 50 years on. *Nature* 2002;415:219-226.
63. Wolf PA, Dawber TR, Thomas HE Jr, et al. Epidemiologic assessment of chronic atrial fibrillation and risk of stroke: the Framingham study. *Neurology*. 1978;28:973-977.
64. Crijns HJ, Tjeerdsma G, de Kam PJ, Boomsma F, van Gelder IC, van den Berg MP. Prognostic value of the presence of atrial fibrillation in patients with advanced chronic heart failure. *Eur Heart J* 2000; 21:1238-45.
65. Haissaguerre M, Jais P, Shah DC, et al. Spontaneous initiation of atrial fibrillation by ectopic beats originating in the pulmonary veins. *N Engl J Med* 1998;339:659-666.
66. Cox JL, Canavan TE, Schuessler RB, et al. The surgical treatment of atrial fibrillation. II. Intraoperative electrophysiologic mapping and description of the electrophysiologic basis of atrial flutter and atrial fibrillation. *J Thorac Cardiovasc Surg* 1991;101:406-426.
67. Abreu Filho CA, Lisboa LA, Dallan LA, et al. Effectiveness of the maze procedure using cooled-tip radiofrequency ablation in patients with permanent atrial fibrillation and rheumatic mitral valve disease. *Circulation* 2005; 112(19 Suppl):120-5.
68. Roy D, Talajic M, Dorian P, et al. Amiodarone to prevent recurrence of atrial fibrillation. Canadian Trial of Atrial Fibrillation Investigators. *N Engl J Med*. 2000;342(13):913-20.
69. Klein AL, Grimm RA, Murray RD, et al. Use of transesophageal echocardiography to guide cardioversion in patients with atrial fibrillation. Assessment of Cardioversion Using Transesophageal Echocardiography Investigators. *N Engl J Med*. 2001;344(19):1411-20.
70. Wyse DG, Waldo AL, DiMarco JP, et al. A comparison of rate control and rhythm control in patients with atrial fibrillation. *N Engl J Med* 2002;347:1825-1833.
71. Corley SD, Epstein AE, DiMarco JP, et al. Relationships between sinus rhythm, treatment, and survival in the Atrial Fibrillation Follow-Up Investigation of Rhythm Management (AFFIRM) Study. *Circulation* 2004;109:1509-1513.
72. GO AS, Hylek EM, Chang Y, et al. Anticoagulation therapy for stroke prevention in atrial fibrillation: how well do randomized trials translate into clinical practice. *JAMA*. 2003;290(20):2685-92.
73. Alboni P, Botto GL, Baldi N, et al. Outpatient treatment of recent-onset atrial fibrillation with the "pill-in-the-pocket" approach. *N Engl J Med*. 2004;351(23):2384-91.
74. Singh BN, Singh SN, Reda DJ, et al. Sotalol Amiodarone Atrial Fibrillation Efficacy Trial (SAFE-T) Investigators. Amiodarone versus sotalol for atrial fibrillation. *N Engl J Med*. 2005;352(18):1861-72.
75. Anand K, Mooss AN, Hee IT. Meta-analysis: inhibition of renin-angiotensin system prevents new-onset atrial fibrillation. *Am Heart J* 2006; 152:217-22.
76. Scanavacca MI, Sosa E. Catheter ablation of atrial fibrillation: techniques and results. *Arq Bras Cardiol*. 2005;85(4):295-301.
77. Cappato R, Calkins H, Chen SA, et al. Worldwide survey on the methods, efficacy, and safety of catheter ablation for human atrial fibrillation. *Circulation* 2005;111:1100-1105.
78. Fenelon G, Scanavacca M, Atié J, et al. Atrial fibrillation ablation in Brazil: results of the registry of the Brazilian Society of Cardiac Arrhythmias. *Arq Bras Cardiol*. 2007;89(5):258-62, 285-9.
79. Pappone C, Augello G, Sala S, et al. A randomized trial of circumferential pulmonary vein ablation versus antiarrhythmic drug therapy in paroxysmal atrial fibrillation: the APAF Study. *J Am Coll Cardiol* 2006;48:2340-2347.
80. Scanavacca M, Pisani CF, Hachul D, et al. Selective atrial vagal denervation guided by evoked vagal reflex to treat patients with paroxysmal atrial fibrillation. *Circulation* 2006;114:876-885.
81. Stabile G, Bertaglia E, Senatore G, et al. Catheter ablation treatment in patients with drug-refractory atrial fibrillation: a prospective, multi-centre, randomized, controlled study (Catheter Ablation For The Cure Of Atrial Fibrillation Study). *Eur Heart J* 2006;27:216-221.
82. Roy D, Talajic M, Nattel S, Wyse DG, Dorian P, Lee KL, et al. The Atrial Fibrillation and Congestive Heart Failure Investigators. Rhythm Control versus Rate Control for Atrial Fibrillation and Heart Failure. *N Engl J Med* 2008; 358:2227-2677.
83. Køber L, Torp-Pedersen C, McMurray JJ, for Dronedaron Study Group. Increased mortality after dronedarone therapy for severe heart failure. *N Engl J Med*. 2008; 358:2678-87.
84. Connolly SJ, Crijns HJ, Torp-Pedersen C, for ATHENA Investigators. Analysis of stroke in ATHENA: a placebo-controlled, double-blind, parallel-arm trial to assess the efficacy of dronedarone 400 mg BID for the prevention of cardiovascular hospitalization or death from any cause in patients with atrial fibrillation/atrial flutter. *Circulation* 2009; 120:1174-80.
85. Khan MN, Jaïs P, Cummings J, Di Biase L, et al. PABA-CHF

Investigators. Pulmonary-vein isolation for atrial fibrillation in patients with heart failure. *N Engl J Med*. 2008;359(17):1778-85. 86. Connolly SJ, Ezekowitz MD, Yusuf S, et al, RE-LY Steering Committee and Investigators. Dabigatran versus Warfarin in patients with atrial fibrillation. *N Engl J Med*. 2009;361(12):1139-51. 87. Wilber DJ, Pappone C, Neuzil P, ThermoCool AF Trial Investigators. Comparison of antiarrhythmic drug therapy and radiofrequency catheter ablation in patients with paroxysmal atrial fibrillation: a randomized controlled trial. *JAMA*. 2010;303(4):333-40. 88. Talajic M, Khairy P, Levesque S, Connolly SJ, Dorian P, Dubuc M, et al.; AF-CHF Investigators. Maintenance of sinus rhythm and survival in patients with heart failure and atrial fibrillation. *J Am Coll Cardiol* 2010;55(17):1796-802. 89. Van Gelder IC, Groenveld HF, Crijns HJGM, Tuininga YS, Tijssen JGP, Alings AM, et al, the RACE II Investigators. Lenient versus strict rate control in patients with atrial fibrillation. *N Engl J Med* 2010; 362:1363-1373. 90. January CT, Wann LS, Alpert JS, Calkins H, Cleveland JC, Cigarroa JE, Conti JB, Ellinor PT, Ezekowitz MD, Field ME, Murray KT, Sacco RL, Stevenson WG, Tchou PJ, Tracy CM, Yancy CW, 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society. *Circulation* 2014;129:1-124. 91. DIRETRIZ DE ARRITMIAS CARDÍACAS EM CRIANÇAS E CARDIOPATIAS CONGÊNITAS SOBRAC E DCC - CP. Magalhães LP, Guimarães I, Melo SL, Mateo E, Andalaft RB, Xavier L, Lorga AM Filho, Fagundes AA, Moreira D, Hachul DI, Sternick EB, Andrea EM, Cannavan F, Oliveira F, Darrieux F, Lima GG, Atié J, Elias J Neto, Zimmerman Li, Miana L, Pellanda LC, Sacilotto L, Jatene MB, Soares MM, Binotto MA, Scanavacca MI, Oliveira NA Junior, Zielinsky P, Salerno PR, Teixeira RA, Kuniyoshi RR, Costa R, Schames S Neto, Pedra S, Gimenez SC, WU TC, Aiello VD. *Arq Bras Cardiol*. 2016 Jul;107(11 Suppl 3):1-58. doi: 10.5935/abc.20160103. PMID: 2748720 92. ACC/AHA/HRS Guideline on the Evaluation and Management of Patients with Bradycardia and Cardiac Conduction Delay: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society. Kusumoto FM, Schoenfeld MH, Barrett C, Edgerton JR, Ellenbogen KA, Gold MR, Goldschlager NF, Hamilton RM, Joglar JA, Kim RJ, Lee R, Marine JE, McLeod CJ, Oken KR, Patton KK, Pellegrini CN, Selzman KA, Thompson A, Varosy PD. *Circulation*. 2019 Aug 20;140(8):e382-e482. 10.1161/CIR.0000000000000628. Epub 2018 Nov 6. PMID: 30586772 93. 2015 heart rhythm society expert consensus statement on the diagnosis and treatment of postural tachycardia syndrome, inappropriate sinus tachycardia, and vasovagal syncope. Sheldon RS, Grubb BP 2nd, Olshansky B, Shen WK, Calkins H, Brignole M, Raj SR, Krahn AD, Morillo CA, Stewart JM, Sutton R, Sandroni P, Friday KJ, Hachul DT, Cohen MI, Lau DH, Mayuga KA, Moak JP, Sandhu RK, Kanjwal K. *Heart Rhythm*. 2015 Jun;12(6):e41-63. doi: 10.1016/j.hrthm.2015.03.029. Epub 2015 May 14. PMID: 25980576 94. ESC Guidelines for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death: The Task Force for the Management of Patients with Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death of the European Society of Cardiology (ESC). Endorsed by: Association for European Paediatric and Congenital Cardiology (AEPC). Priori SG, Blomström-Lundqvist C, Mazzanti A, Blom N, Borggrefe M, Camm J, Elliott PM, Fitzsimons D, Hatala R, Hindricks G, Kirchhof P, Kjeldsen K, Kuck KH, Hernandez Madrid A, Nikolaou N, Norekvål TM, Spaulding C, Van Veldhuisen DJ; ESC Scientific Document Group. *Eur Heart J*. 2015 Nov 1;36(41):2793-2867. doi: 10.1093/eurheartj/ehv316. Epub 2015 Aug 29. PMID: 26320108 95. ESC Guidelines for the diagnosis and management of syncope. Brignole M, Moya A, de Lange FJ, Deharo JC, Elliott PM, Fanciulli A, Fedorowski A, Furlan R, Kenny RA, Martín A, Probst V, Reed MJ, Rice CP, Sutton R, Ungar A, van Dijk JG; ESC Scientific Document Group. *Eur Heart J*. 2018 Jun 1;39(21):1883-1948. doi: 10.1093/eurheartj/ehy037. PMID: 29562304 96. ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. Hindricks G, Potpara T, Dagres N, Arbelo E, Bax JJ, Blomström-Lundqvist C, Boriani G, Castella M, Dan GA, Dilaveris PE, Fauchier L, Filippatos G, Kalman JM, La Meir M, Lane DA, Lebeau JP, Lettino M, Lip GYH, Pinto FJ, Thomas GN, Valgimigli M, Van Gelder IC, Van Putte BP, Watkins CL; ESC Scientific Document Group. *Eur Heart J*. 2021 Feb 1;42(5):373-498. doi: 10.1093/eurheartj/ehaa612. PMID: 32860505. 97. 2019 HRS expert consensus statement on evaluation, risk stratification, and management of arrhythmogenic cardiomyopathy. Jeffrey A Towbin, William J McKenna, Dominic J Abrams, Michael J Ackerman, Hugh Calkins, Francisco C C Darrieux, James P Daubert, Christian de Chillou, Eugene C DePasquale, Milind Y Desai, N A Mark Estes 3rd, Wei Hua, Julia H Indik, Jodie Ingles, Cynthia A James, Roy M John, Daniel P Judge, Roberto Keegan, Andrew D Krahn, Mark S Link, Frank J Marcus, Christopher J McLeod, Luisa Mestroni, Silvia G Priori, Jeffrey E Saffitz, Shubhayan Sanatani, Wataru Shimizu, J Peter van Tintelen, Arthur A M Wilde, Wojciech Zareba. *Heart Rhythm* 2019; 16(11):301-372. DOI: 10.1016/j.hrthm.2019.05.007 PMID: 31078652 98. Consensus statement on the definition of

orthostatic hypotension, neurally mediated syncope and the postural tachycardia syndrome. Freeman R, Wieling W, Axelrod FB, Benditt DG, Benarroch E, Biaggioni I, Cheshire WP, Chelimsky T, Cortelli P, Gibbons CH, Goldstein DS, Hainsworth R, Hilz MJ, Jacob G, Kaufmann H, Jordan J, Lipsitz LA, Levine BD, Low PA, Mathias C, Raj SR, Robertson D, Sandroni P, Schatz I, Schondorff R, Stewart JM, van Dijk JG. Clin Auton Res. 2011 L: 49-72. doi: 10.1007/s10286-011-0119-5. PMID: 21431947 99. Canadian Cardiovascular Society Position Statement on Postural Orthostatic Tachycardia Syndrome (POTS) and Related Disorders of Chronic Orthostatic Intolerance. Raj SR, Guzman JC, Harvey P, Richer L, Schondorf R, Seifer C, Thibodeau-Jarry N, Sheldon RS. Can J Cardiol. 2020 Mar; 36 (3):357-372. doi: 10.1016/j.cjca.2019.12.024. PMID: 32145864 100. The importance of dedicated teams for the management of patients with syncope. Hachul DT. Rev Port Cardiol (Engl Ed). 2020 May;39(5):263-265. doi: 10.1016/j.repc.2020.05.005. Epub 2020 Jun 10. PMID: 32532537.

Tipo de oferecimento da disciplina:

Não-Presencial

Informações adicionais do oferecimento da disciplina:

- A porcentagem da disciplina que ocorrerá no sistema não presencial (1-100%). 100%
- Detalhamento das atividades que serão presenciais e das que serão desenvolvidas via remota, com discriminação do tempo de atividade continua online. Em nossa avaliação, será melhor manter o curso todo remoto.
- Especificação se as aulas, quando online, serão síncronas ou assíncronas. Todas serão online Descrição do tipo de material e/ou conteúdo que será disponibilizado para o aluno e a plataforma que será utilizada. ZOOM
- Definição sobre a presença na Universidade e, quando necessária, discriminar quem deverá estar presente (professora/professor; aluna/aluno; ambos). Não se aplica
- Descrição dos tipos e da frequência de interação entre aluna/aluno e professora/professor (somente durante as aulas; fora do período das aulas; horários; por chat/e-mail/fóruns ou outro). Os professores estarão à disposição dos alunos para contato por e-mail ou telefônico assim que fechado o período da matrícula para a distribuição dos temas dos seminários e uma semana antes para discussões e orientação no preparo das apresentações.
- A forma de controle da frequência nas aulas. Câmeras ligadas. Informação sobre a obrigatoriedade ou não de disponibilidade de câmera e áudio (microfone) por parte dos alunos. Deverão permanecer com as câmeras ligadas e microfones desligados, exceto durante as apresentações pessoais, quando ligarão seus microfones e quando forem solicitados, nas discussões interativas.
- A forma de avaliação da aprendizagem (presencial/remota). Conteúdo e profundidade na abordagem do tema proposto pelo professor orientador, participação e desempenho nas discussões interativas, avaliação de assiduidade e observação da atenção do aluno durante o seminário dos colegas.