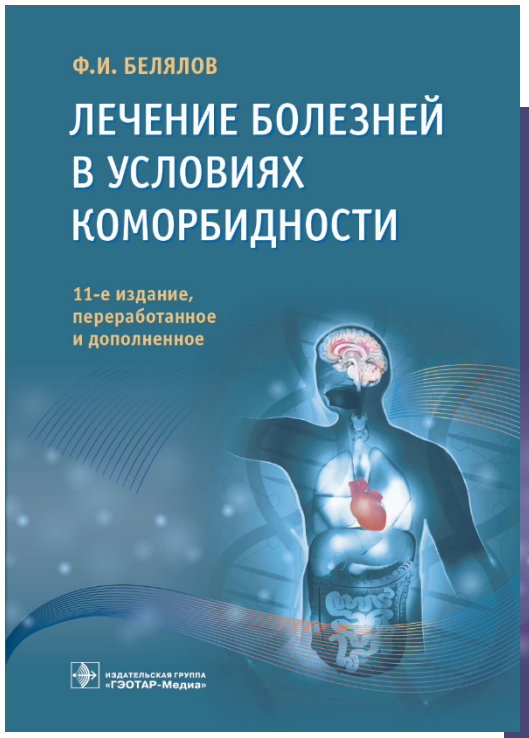
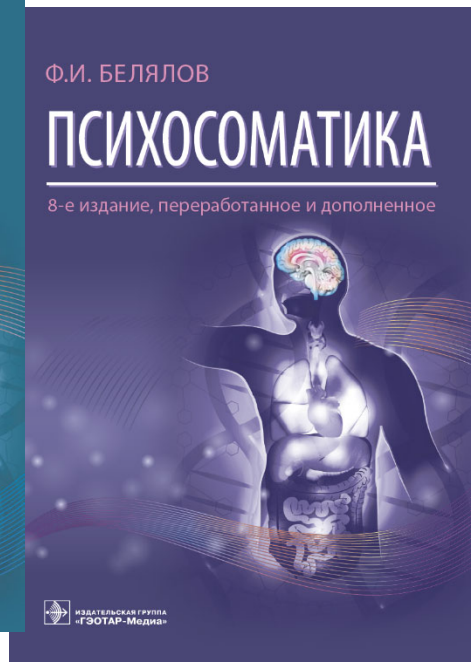
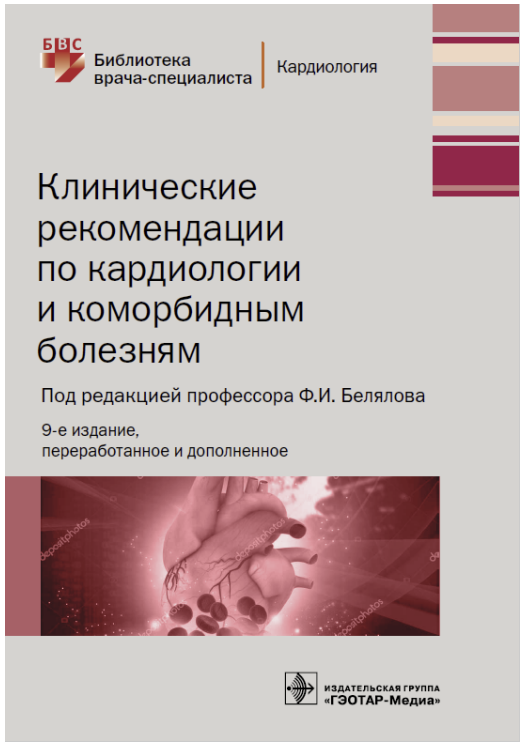
РОССИЙСКОЕ КАРДИОЛОГИЧЕСКОЕ ОБЩЕСТВО

Фарид Исмагильевич Белялов

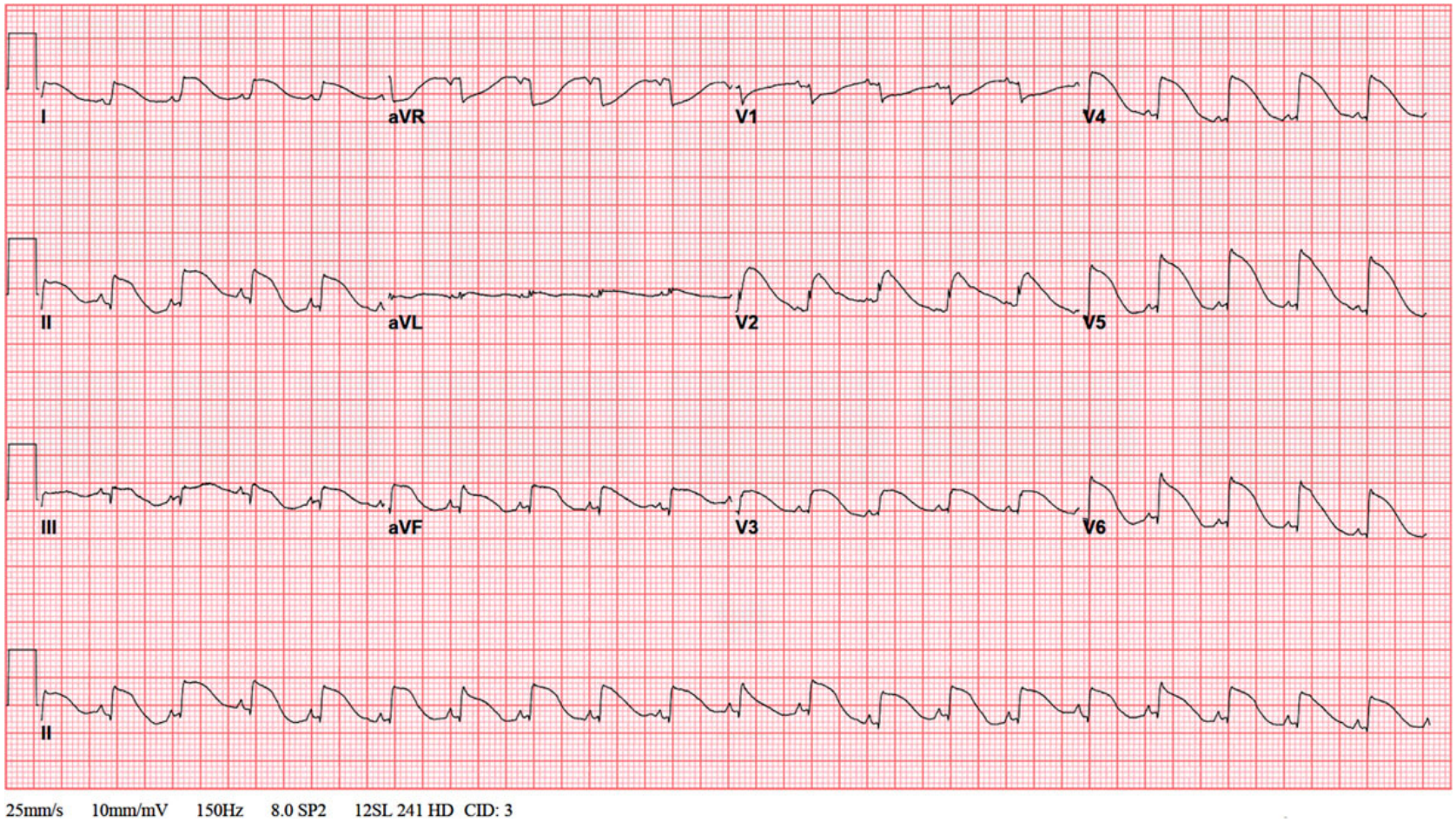
Коморбидные чтения







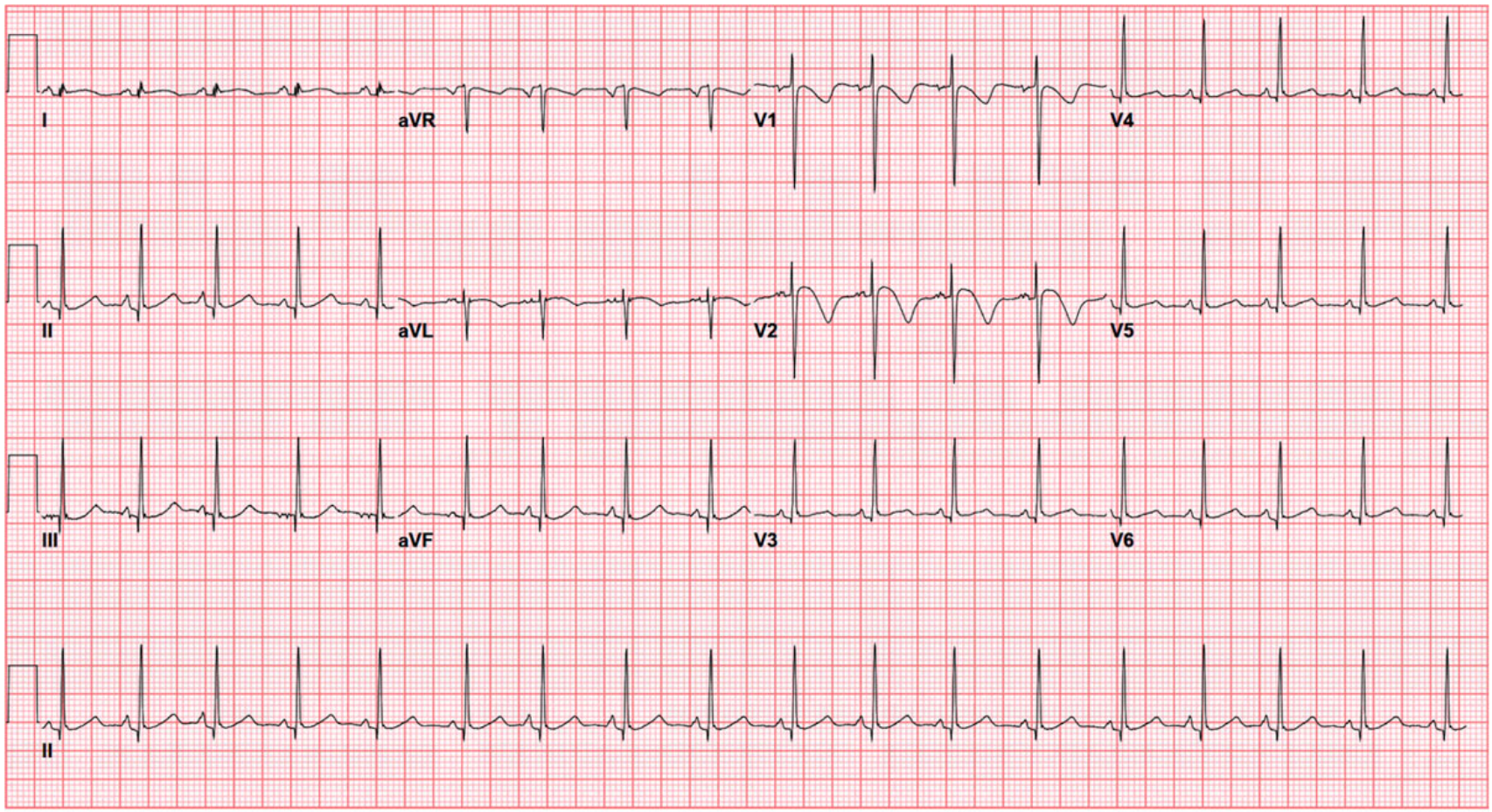
Иркутск, 30.05.2019



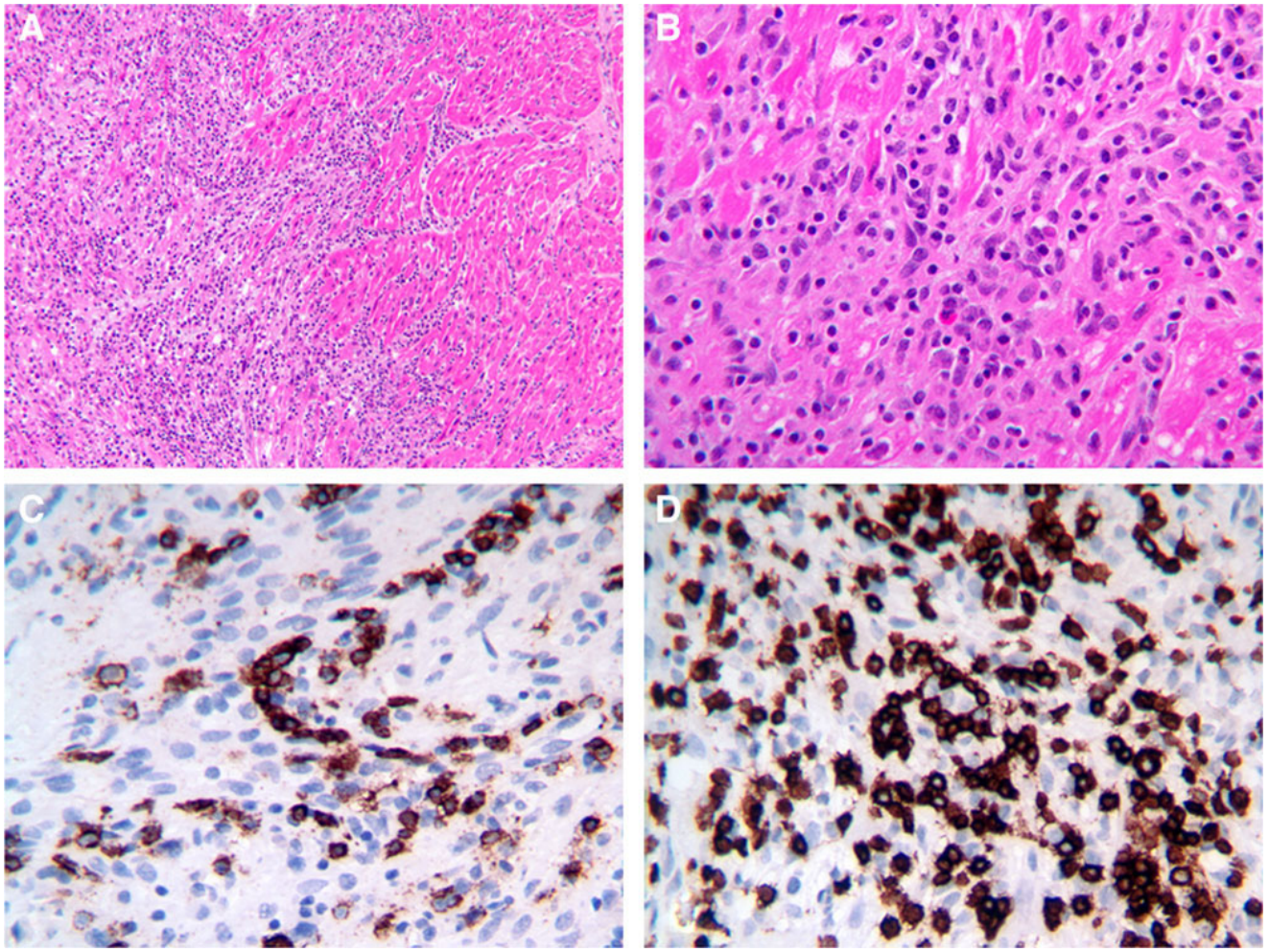
Выраженная одышка, шок

Тропонин I 2.48−5.65 нг/мл (норма <0.024)

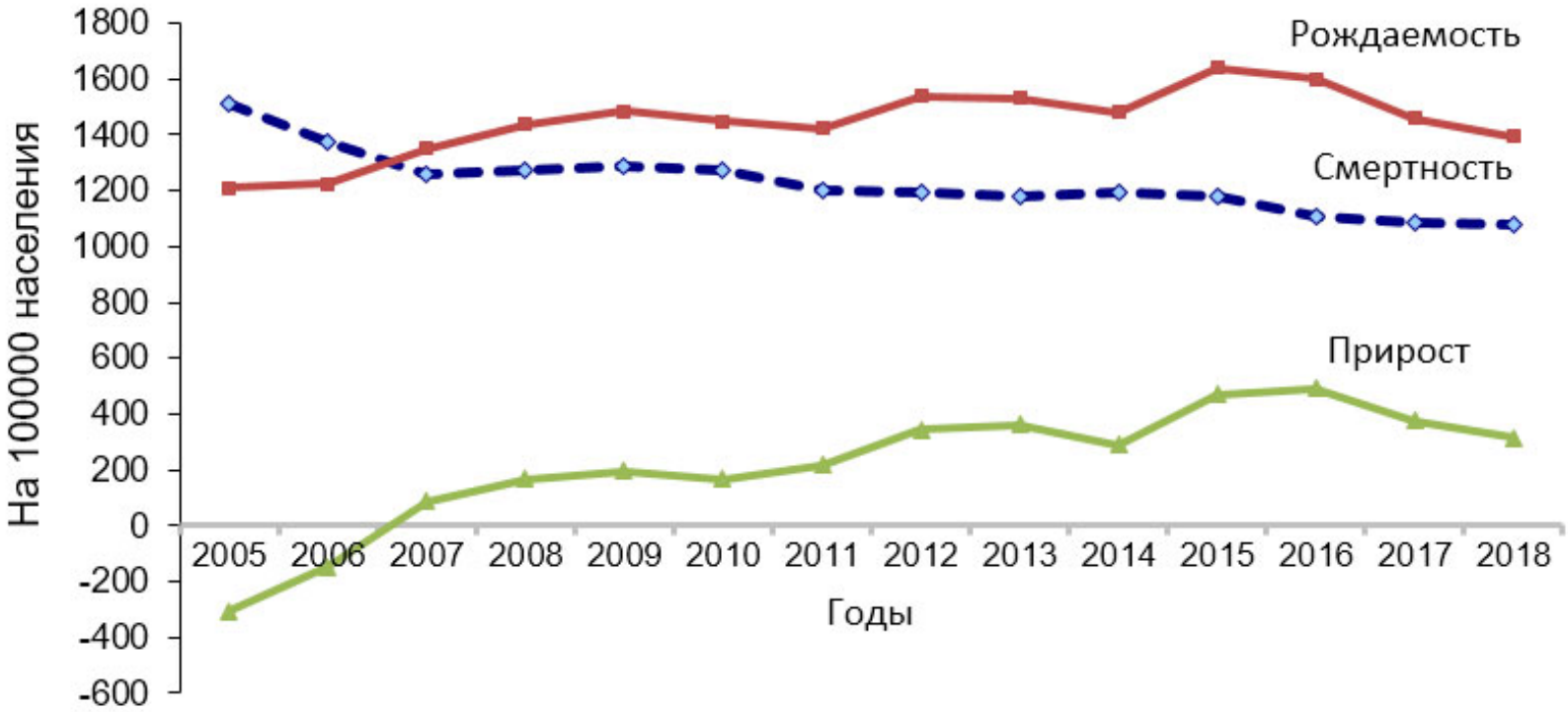
Глобальное нарушение сократимости



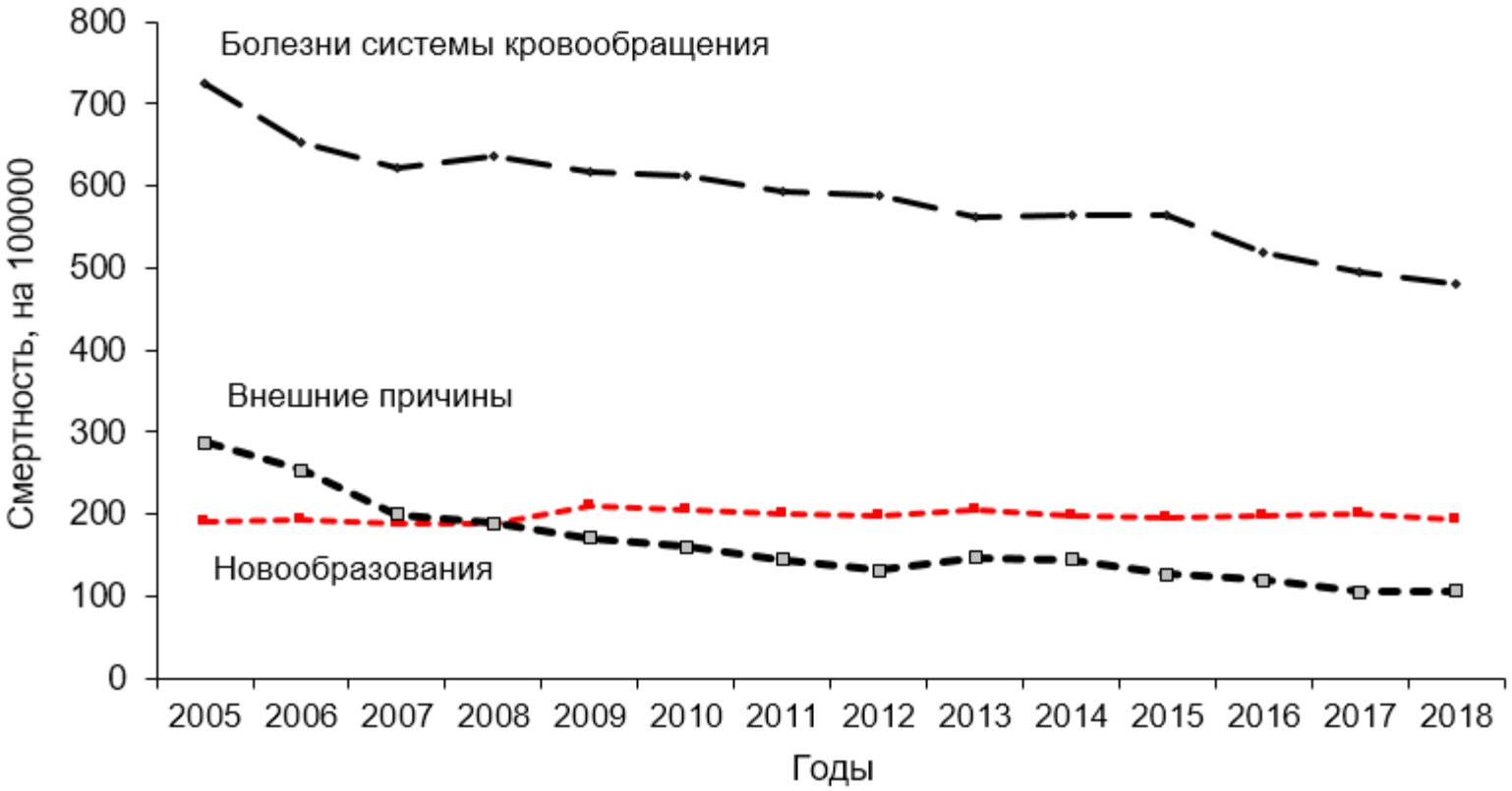
Через 10 недель


A
B
C
D

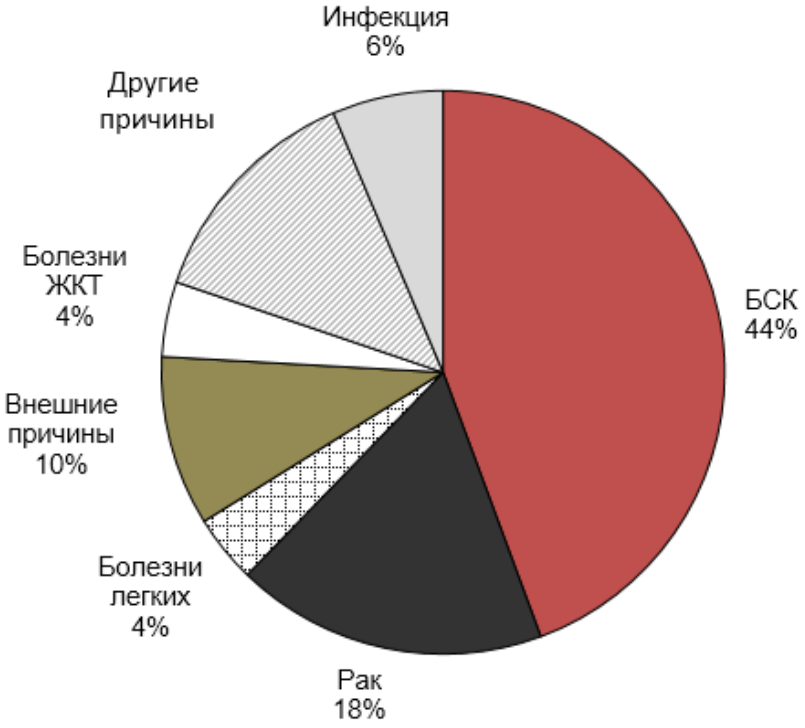
Естественное движение населения в Иркутске

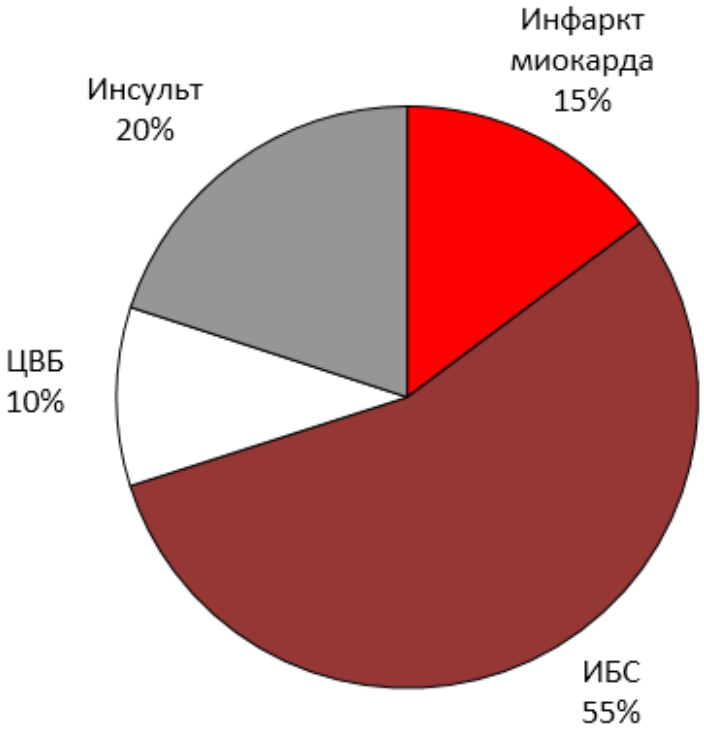


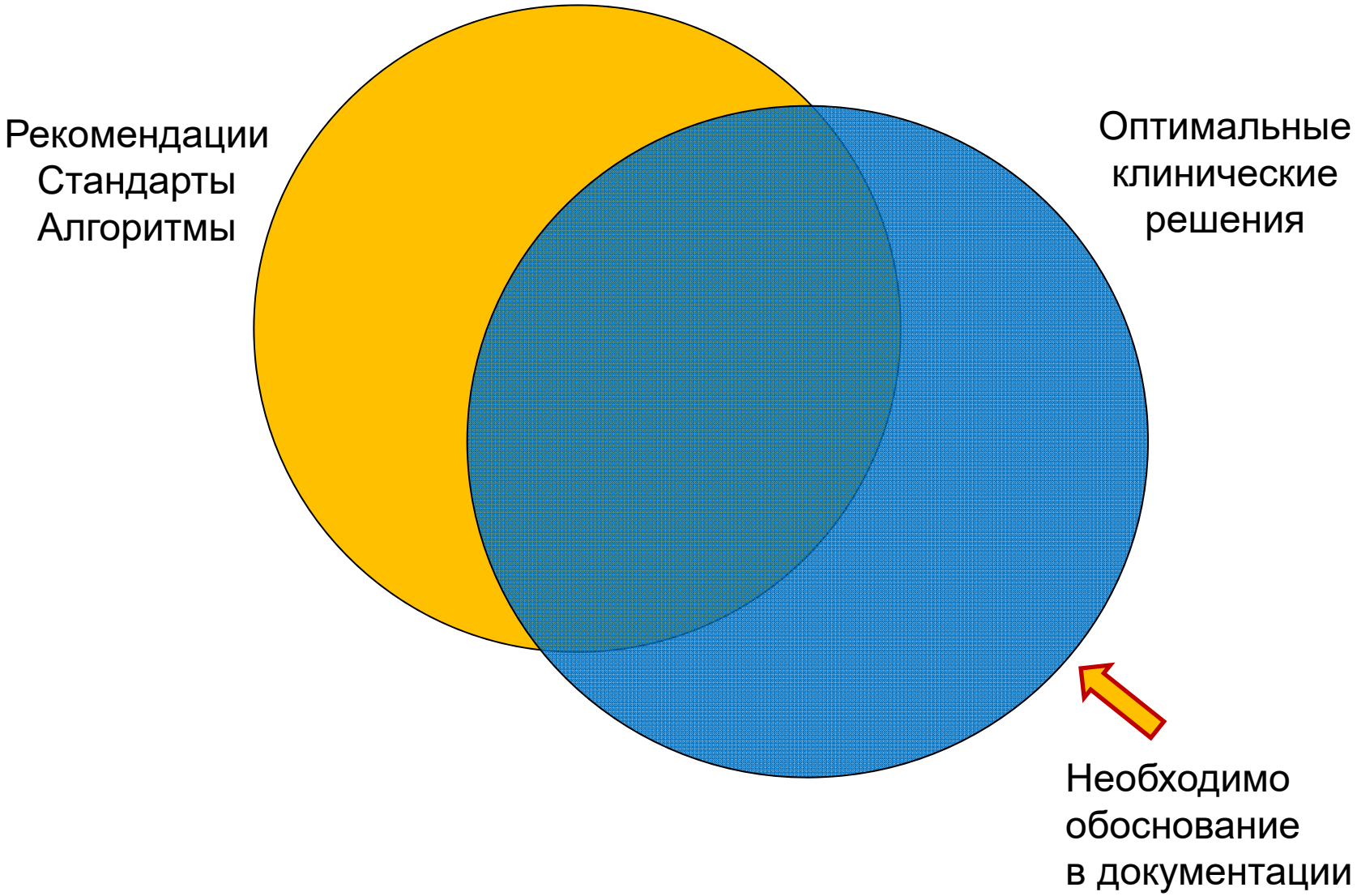
Смертность населения Иркутска от основных причин



Структура смертности населения Иркутска в 2018 году



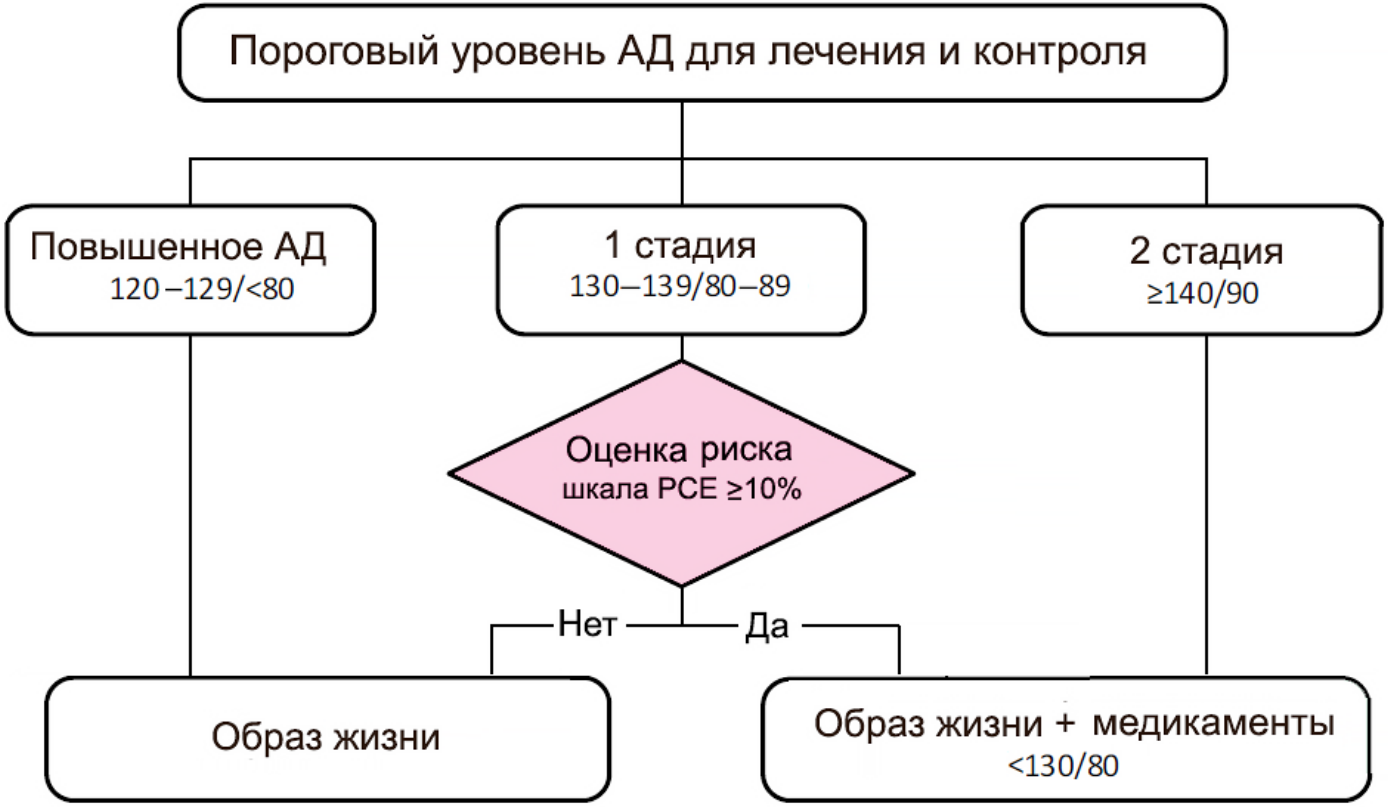



Рекомендации
Стандарты
Алгоритмы
Оптимальные
клинические
решения
Необходимо
обоснование
в документации

Индивидуальная медицина

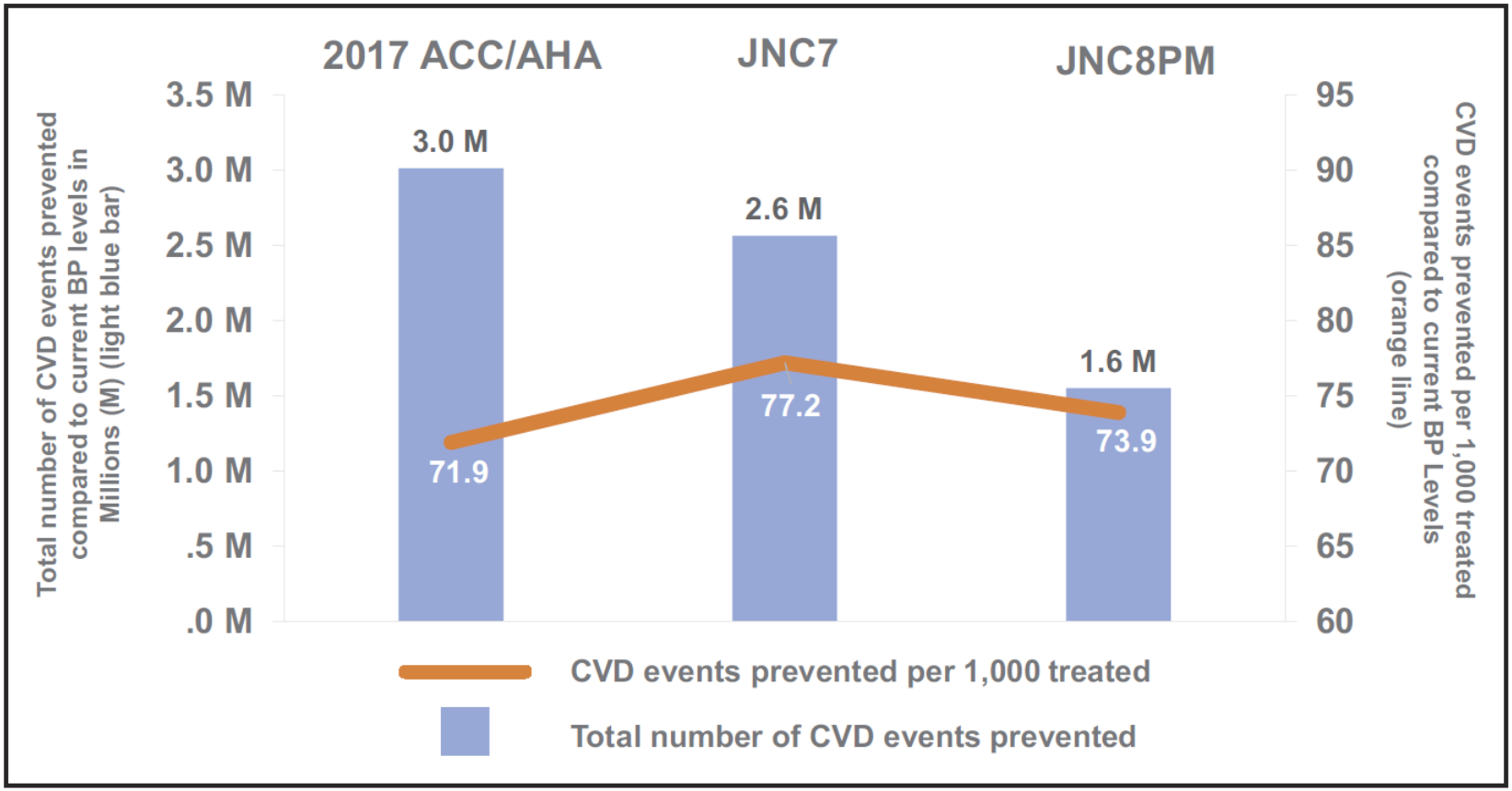
Профилактика ИБС
Контроль факторов риска

Тактика лечения гипертензии ACC/AHA



2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. J Am Coll Card. 2017.

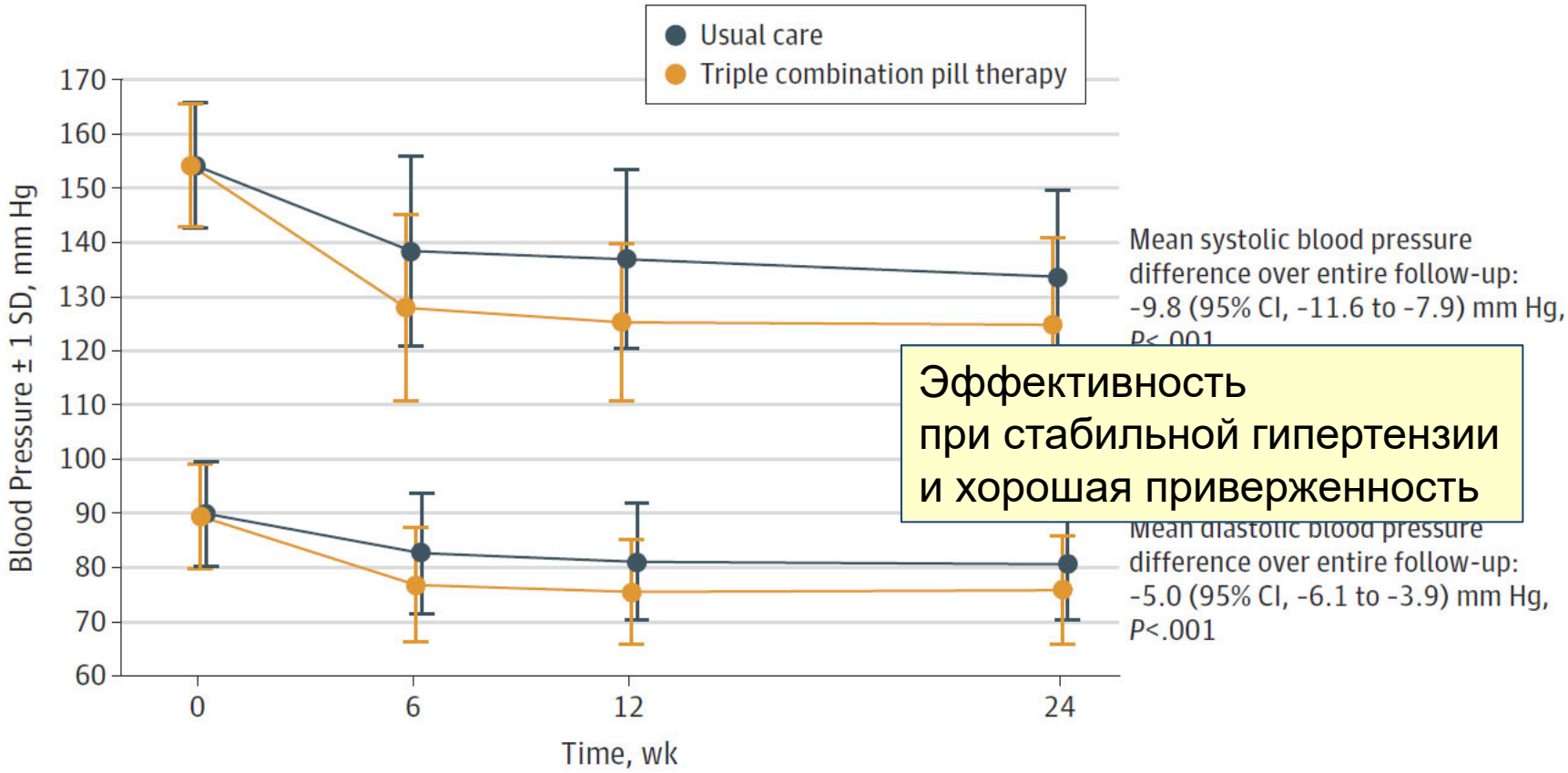
Влияние нового подхода на ССЗ



Более жесткий контроль АД у пациентов высокого риска предупреждает больше ССЗ

Bress Adam P, Colantonio Lisandro D, Cooper Richard S, et al. Potential Cardiovascular Disease Events Prevented with Adoption of the 2017 American College of Cardiology/American Heart Association Blood Pressure Guideline. Circulation. 2019;1:24-36.

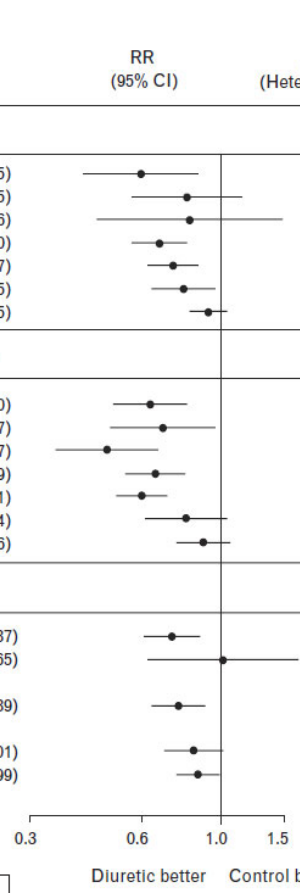
Тройная комбинация



Webster R, Salam A, de Silva HA, et al. Fixed Low-Dose Triple Combination Antihypertensive Medication vs Usual Care for Blood Pressure Control in Patients With Mild to Moderate Hypertension in Sri Lanka. A Randomized Clinical Trial. JAMA. 2018;320(6):566–579.

Сравнение диуретиков

Outcome	Trials (n)	Outcome risk (% in 5 years)	Difference SBP/DBP (mmHg)	Events (n/patients) Treated	Events (n/patients) Controls	RR (95% CI)	RR (95% CI)	P (Heterogen)	Absolute Risk Reduction 1000 pts/5 years (95% CI)	NNT 5 years (95% CI)
A. Thiazides										
Stroke	4	5.2	–17.3/–8.1	74/2329	193/3442	0.59 (0.41–0.85)		0.26	–22 (–32, –8)	46 (32, 128)
CHD	4	5.3	–17.3/–8.1	89/2329	199/3442	0.80 (0.56–1.15)		0.23	–11 (–24, +8)	94 (42, –128)
HF	2	2.9	–19.3/–9.0	19/822	24/803	0.81 (0.45–1.46)		0.55	–6 (–16, +13)	179 (62, –74)
Stroke + CHD	4	10.2	–17.3/–8.1	163/2329	392/3442	0.67 (0.56–0.80)		0.90	–34 (–46, –21)	29 (22, 49)
Stroke + CHD + HF	3	11.8	–16.4/–7.7	183/1903	405/3016	0.74 (0.62–0.87)		0.65	–31 (–46, –15)	32 (22, 65)
CV Death	4	8.0	–17.3/–8.1	163/2329	298/3442	0.79 (0.65–0.95)		0.44	–17 (–28, –4)	59 (35, 249)
All-cause Death	4	13.1	–17.3/-8.1	309/2329	495/3442	0.92 (0.81–1.05)		0.48	–10 (–25, +7)	95 (40, –153)
B. Chlorthalidone										
Stroke	2	6.9	–13.4/–3.9	107/2808	155/2479	0.63 (0.50–0.80)		0.47	–25 (–34, –14)	40 (30, 73)
CHD	2	3.4	–13.4/–3.9	58/2808	76/2479	0.69 (0.49–0.97)		0.65	–10 (–17, –1)	97 (60, 980)
HF	2	4.7	–13.4/–3.9	54/2808	104/2479	0.48 (0.35–0.67)		0.60	–23 (–29, –15)	43 (35, 66)
Stroke + CHD	2	10.4	–13.4/–3.9	165/2808	231/2479	0.65 (0.54–0.79)		0.77	–35 (–46, –21)	28 (22, 47)
Stroke + CHD + HF	2	15.0	–13.4/–3.9	219/2808	335/2479	0.60 (0.51–0.71)		0.96	–59 (–71, –43)	17 (14, 23)
CV Death	2	5.2	–13.4/–3.9	104/2808	117/2479	0.80 (0.61–1.04)		0.75	–10 (–20, +2)	96 (50, –476)
All-cause Death	2	11.2	–13.4/–3.9	245/2808	249/2479	0.89 (0.75–1.06)		0.57	–12 (–27, +7)	82 (36, –149)
C. Indapamide										
Stroke	2	15.9	–8.5/–4.0	210/4774	286/4736	0.73 (0.61–0.87)		0.98	–34 (–44, –19)	29 (23, 54)
CHD	2	1.8	–8.5/–4.0	34/4774	33/4736	1.02 (0.63–1.65)		0.38	0 (–5, +9)	
HF	1									
Stroke + CHD	2	17.7	–8.5/–4.0	244/4774	319/4736	0.76 (0.65–0.89)		0.80	–35 (–46, –18)	29 (22, 56)
Stroke + CHD + HF	1									
CV Death	2	12.3	–8.5/–4.0	186/4774	222/4736	0.83 (0.69–1.01)		0.77	–18 (–29, +1)	55 (34, –804)
All-cause Death	2	21.8	–8.5/–4.0	342/4774	393/4736	0.86 (0.75–0.99)		0.46	–27 (–44, –2)	37 (23, 462)

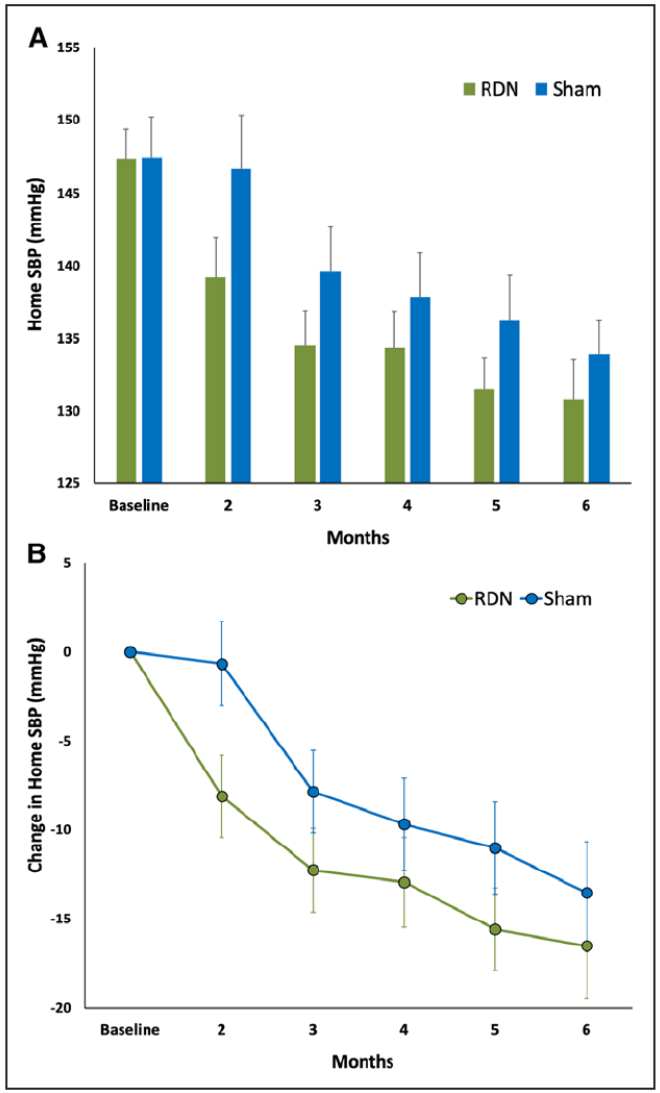


Recommendations	Class[a]	Level[b]
Among all antihypertensive drugs, ACE inhibitors, ARBs, beta-blockers, CCBs, and diuretics (thiazides and thiazide-like drugs such as chlorthalidone and indapamide) have demonstrated effective reduction of BP and CV events in RCTs, and thus are indicated as the basis of antihypertensive treatment strategies.[2]	I	A
Combination treatment is recommended for most hypertensive patients as initial therapy. Preferred combinations should comprise a RAS blocker (either an ACE inhibitor or an ARB) with a CCB or diuretic. Other combinations of the five major classes can be used.[233,318,327,329,341–345]	I	A

Thomopoulos C, et al. Effects of blood pressure lowering on outcome incidence in hypertension: 4. Effects of various classes of antihypertensive drugs--overview and meta-analyses. J Hypertens. 2015;33(2):195-211.
2018 ESC/ESH Guidelines for the management of arterial hypertension. European Heart Journal. 2018;33:3021-3104.

Ренальная денервация vs плацебо

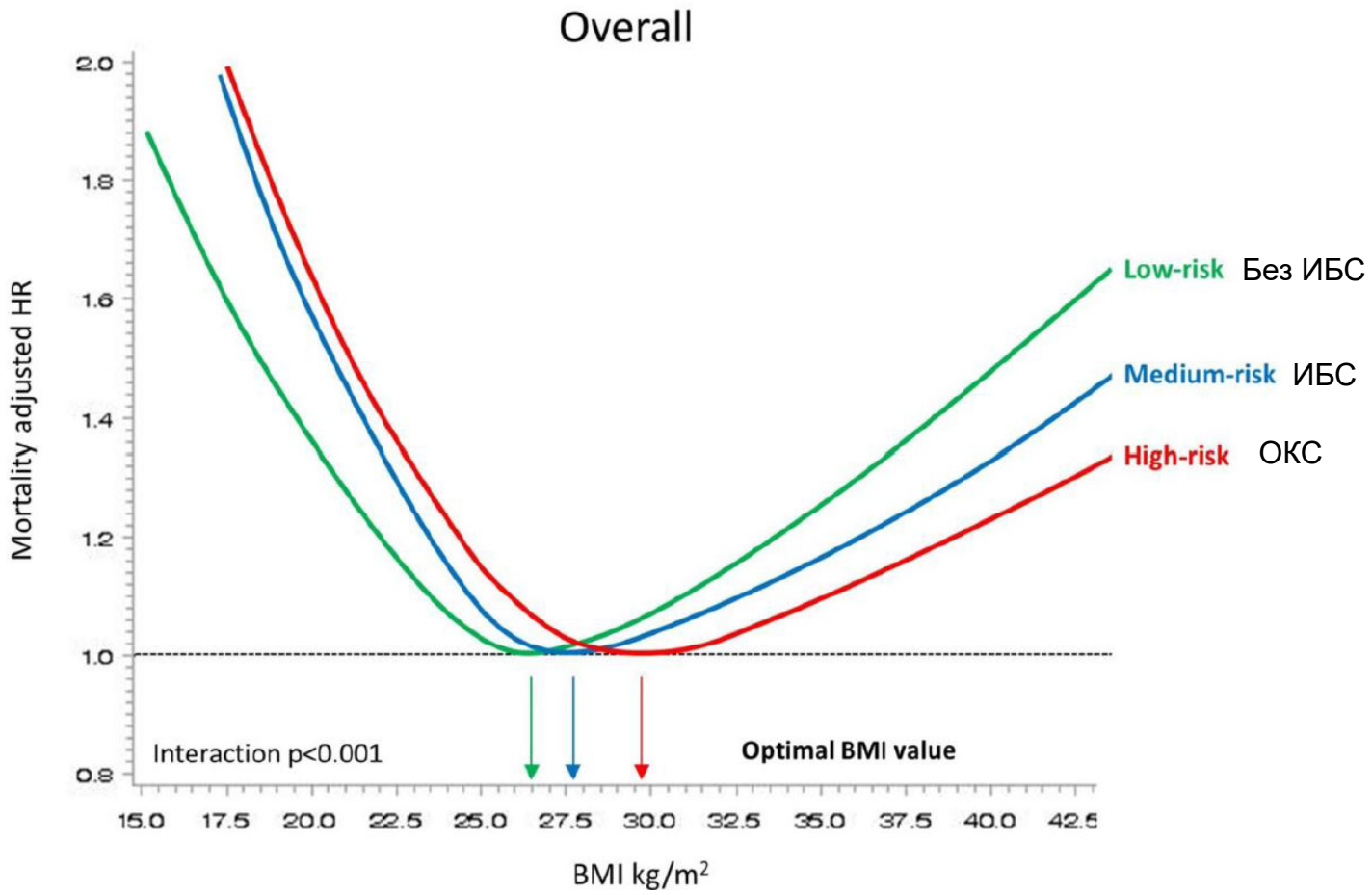
Легкая, умеренная гипертензия
(дневное АД 135-170/85-105)
без медикаментов



RADIANCE-HTN SOLO

Azizi Michel, Schmieder Roland E, Mahfoud Felix, et al. Six-Month Results of Treatment-Blinded Medication Titration for Hypertension Control After Randomization to Endovascular Ultrasound Renal Denervation or a Sham Procedure in the RADIANCE-HTN SOLO Trial. Circulation. 2019;22:2542-2553.

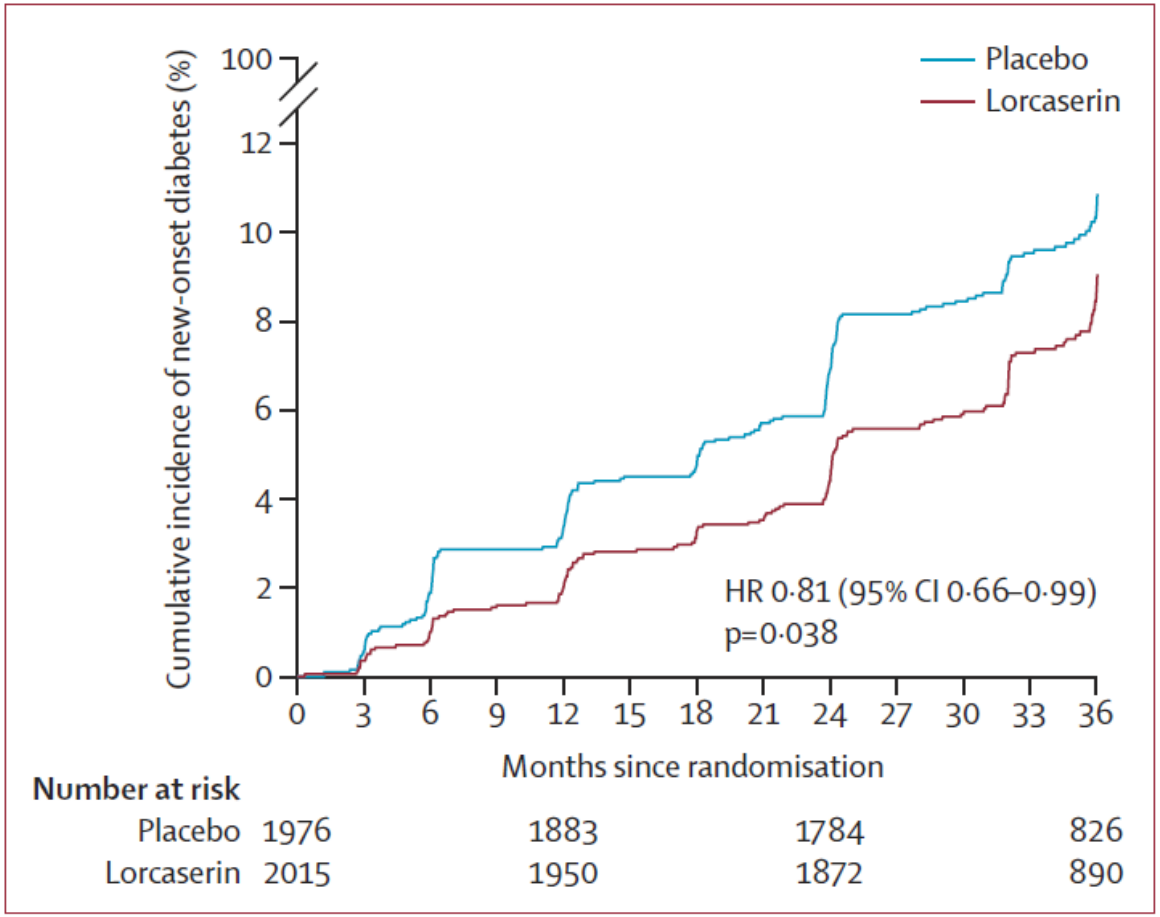
Масса тела и смертность



У пациентов с более высоким сердечно-сосудистым риском ожирение снижает смертность

Lamelas P, Schwalm J, Leong D, et al. Varying Effects of Body Mass Index and Mortality in Different Risk Groups. American Journal of Cardiology. 2018;7:1155-1160.

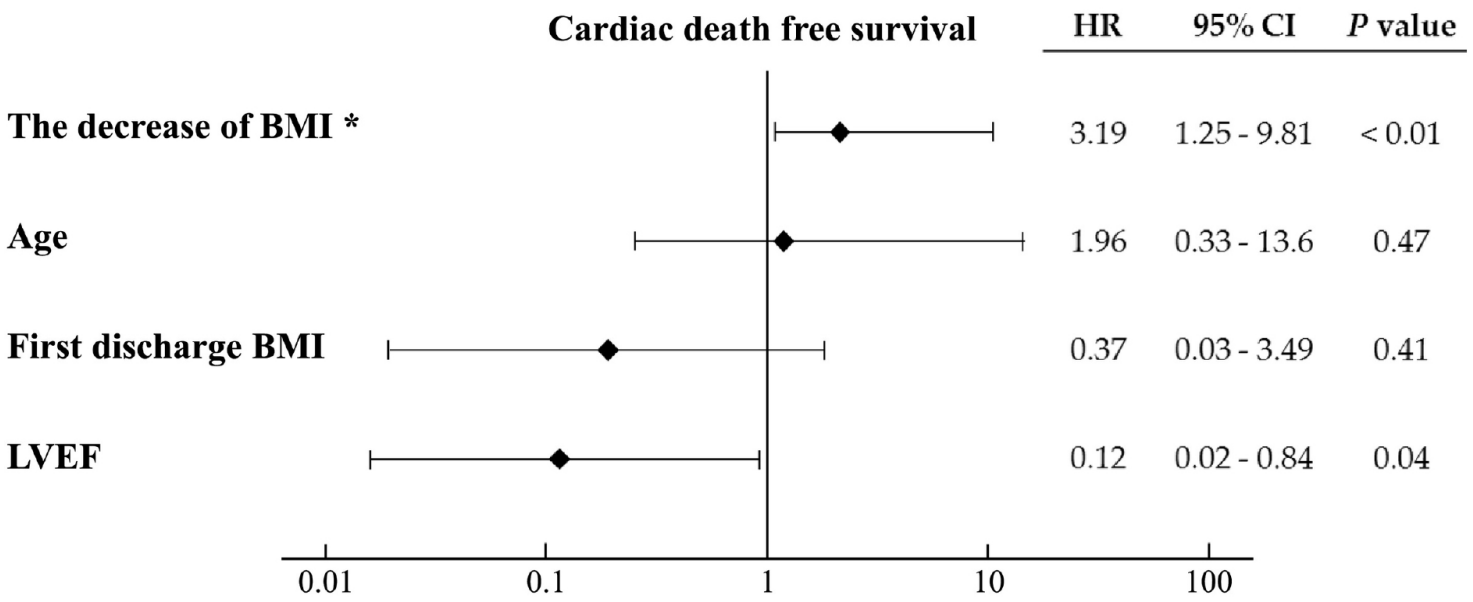
Лоркасерин и профилактика диабета



Снижение массы тела не снижает смертности, СС событий, но уменьшает риск диабета

Bohula E, Scirica B, Inzucchi S, et al. Effect of lorcaserin on prevention and remission of type 2 diabetes in overweight and obese patients (CAMELLIA-TIMI 61): a randomised, placebo-controlled trial. The Lancet. 2018;10161:2269-2279.

Снижение массы тела и СС риски при СН



У пациентов с СН снижение массы тела ухудшает прогноз

Nishikido T, Oyama J, Nagatomo D, et al. A reduction of BMI predicts the risk of rehospitalization and cardiac death in non-obese patients with heart failure. International Journal of Cardiology. 2019;276:166-170.

Ультраобработанные продукты

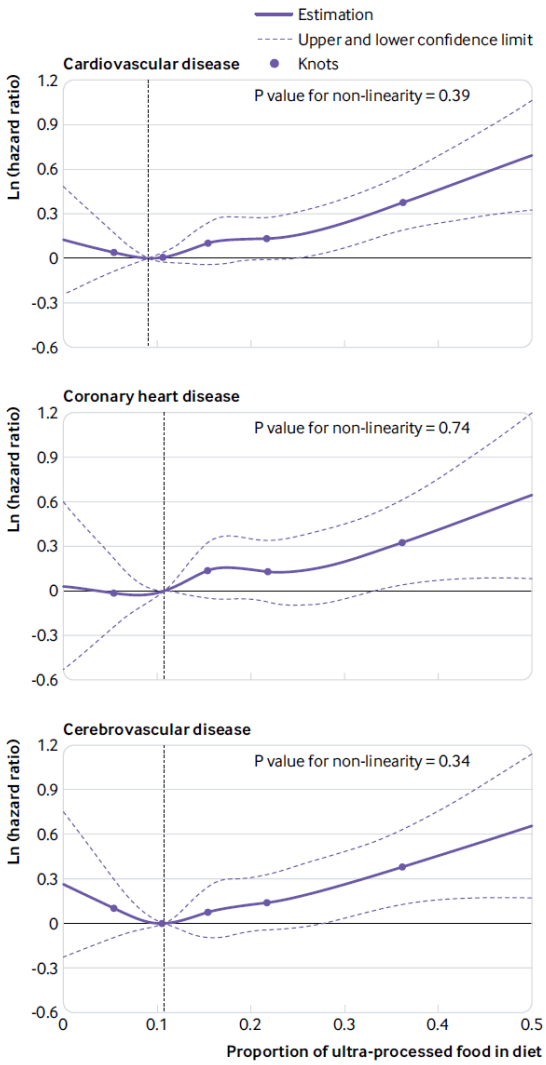
Ультраобработанные продукты

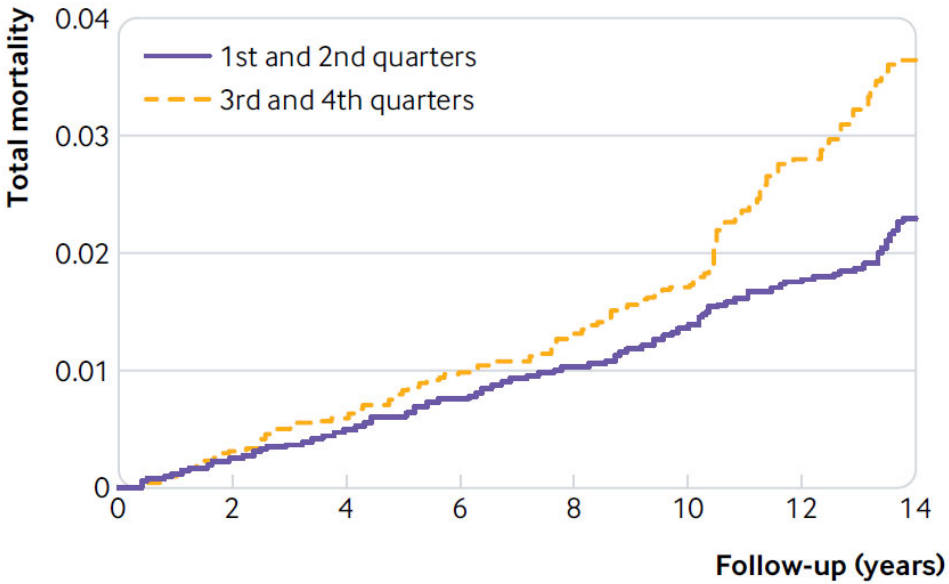
Ultra-processed foods

- 5 или более ингредиентов
- Субстанции, которые не используются в непромышленной кулинарии
- Добавки, маскирующие неприятные свойства или имитирующие приятные свойства продукта
- Агрессивно продвигаются на рынке

- Упакованная выпечка с длительным сроком хранения
- Сладкие или соленые закуски (снэки, чипсы, крекеры и т.д.)
- Шоколадные батончики и другие сладости, включая конфеты
- Газировка и подслащенные напитки
- Готовые блюда из мяса, рыбы и птицы
- Лапша и супы быстрого приготовления
- Готовые замороженные блюда или блюда в заведениях общественного питания (пицца, бургеры, наггетсы, котлеты и т.д.)
- Готовые блюда с избытком сахара, жира и соли, но без витаминов и клетчатки

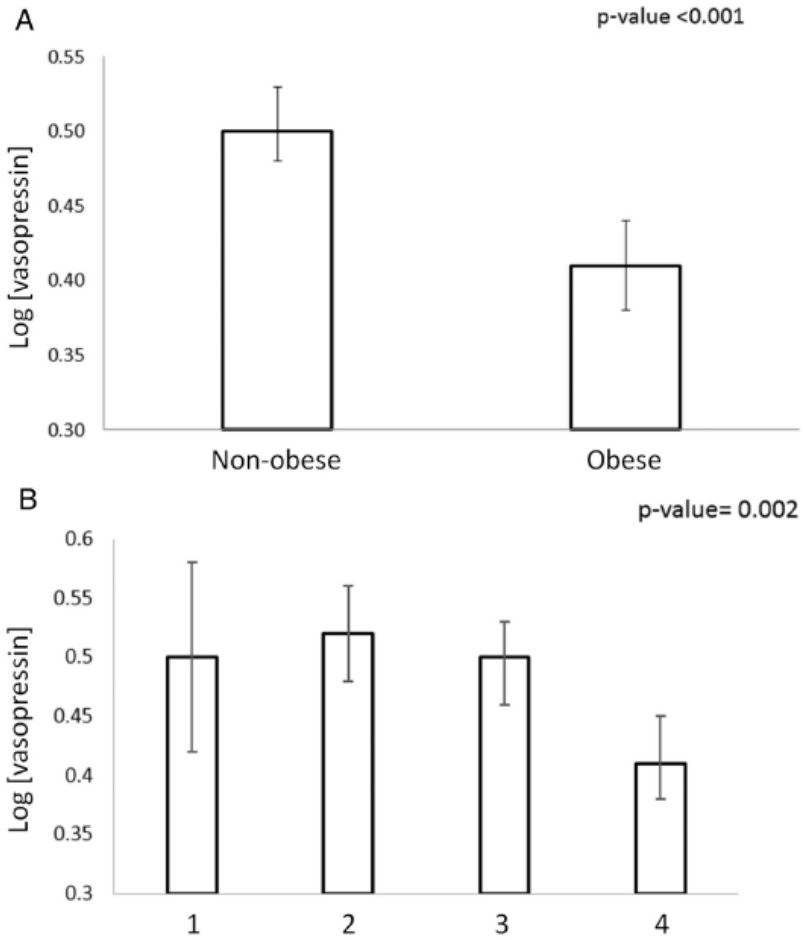
Ультраобработанные продукты





Srour B, Fezeu L, Kesse-Guyot E, et al. Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé). BMJ. 2019;365:l1451.
Rico-Campà A, Martínez-González M, Alvarez-Alvarez I, et al. Association between consumption of ultra-processed foods and all cause mortality: SUN prospective cohort study. BMJ. 2019;365:l1949.

Парадокс ожирения: вазопрессин

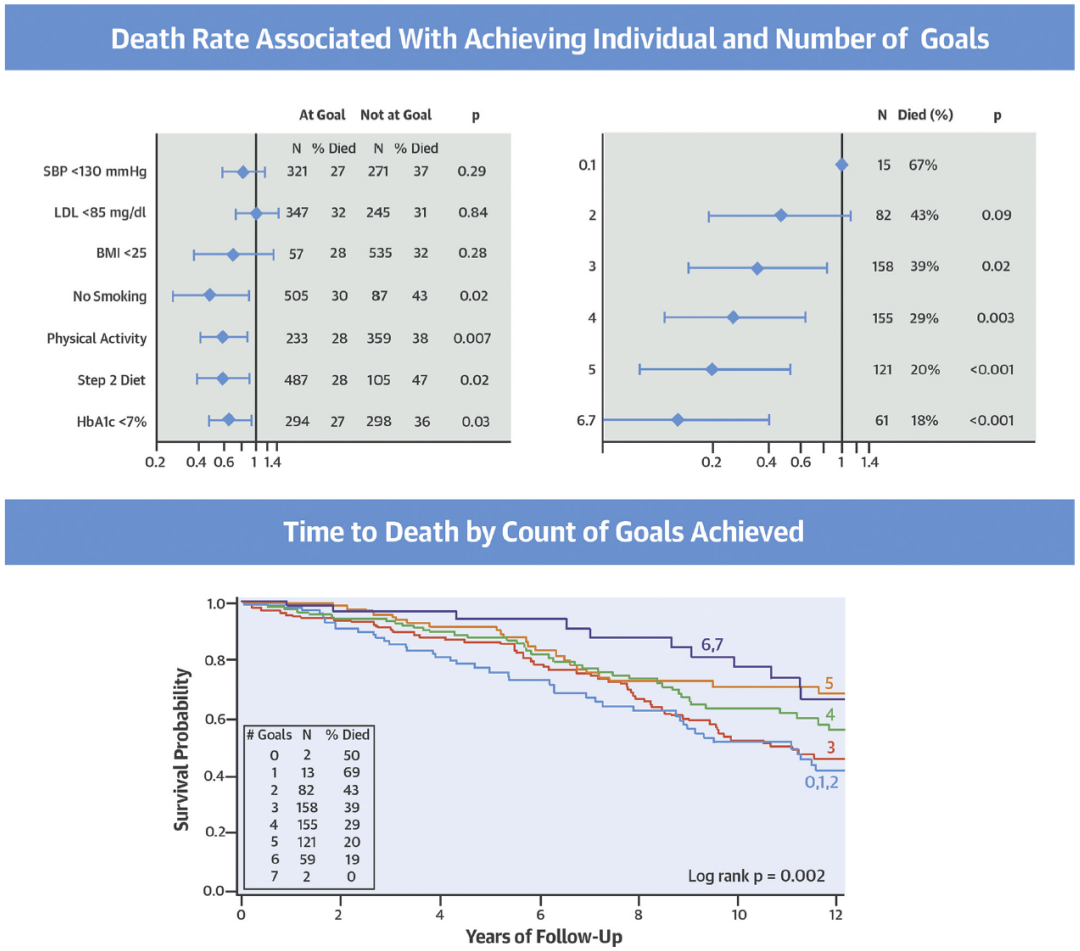


Меньший уровень вазопрессин (АДГ)
снижает тонус сосудов и задержку жидкости

DAMOCLES

Gavaldà-Manso M, Jimenez-Marrero S, Cainzos-Achirica M, et al. Reduced levels of vasopressin, an independent mechanism in the obesity paradox in patients with chronic heart failure: Insights from the DAMOCLES study. International Journal of Cardiology. 2019;276:171-176.

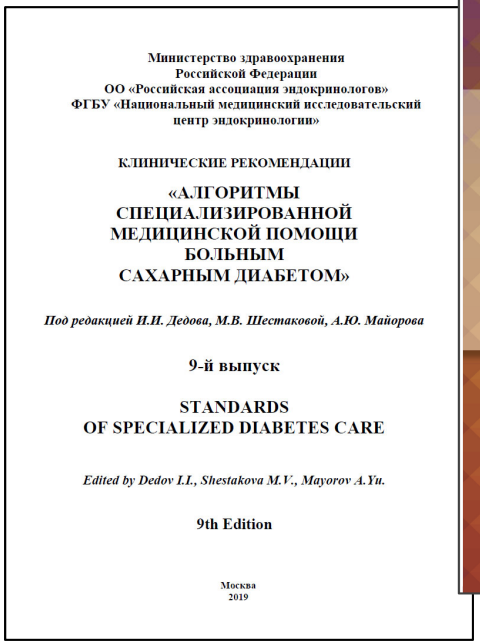
Контроль факторов риска у пациентов с ИБС и диабетом



Чем больше контролируется факторов риска, тем лучше выживаемость

Mancini G, Maron D, Hartigan P, et al. Lifestyle, Glycosylated Hemoglobin A1c, and Survival Among Patients With Stable Ischemic Heart Disease and Diabetes. Journal of the American College of Cardiology. 2019;16:2049-2058.

Диабет



Министерство здравоохранения
Российской Федерации
ОО «Российская ассоциация эндокринологов»
ФГБУ «Национальный медицинский исследовательский
центр эндокринологии»

КЛИНИЧЕСКИЕ РЕКОМЕНДАЦИИ

«АЛГОРИТМЫ
СПЕЦИАЛИЗИРОВАННОЙ
МЕДИЦИНСКОЙ ПОМОЩИ
БОЛЬНЫМ
САХАРНЫМ ДИАБЕТОМ»

Под редакцией И.И. Дедова, М.В. Шестаковой, А.Ю. Майорова

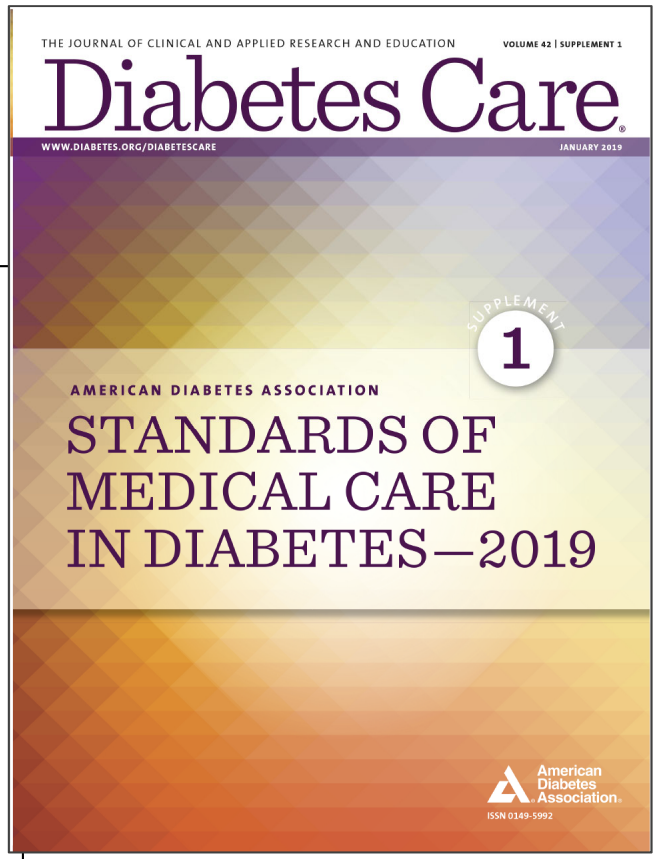
9-й выпуск

STANDARDS
OF SPECIALIZED DIABETES CARE

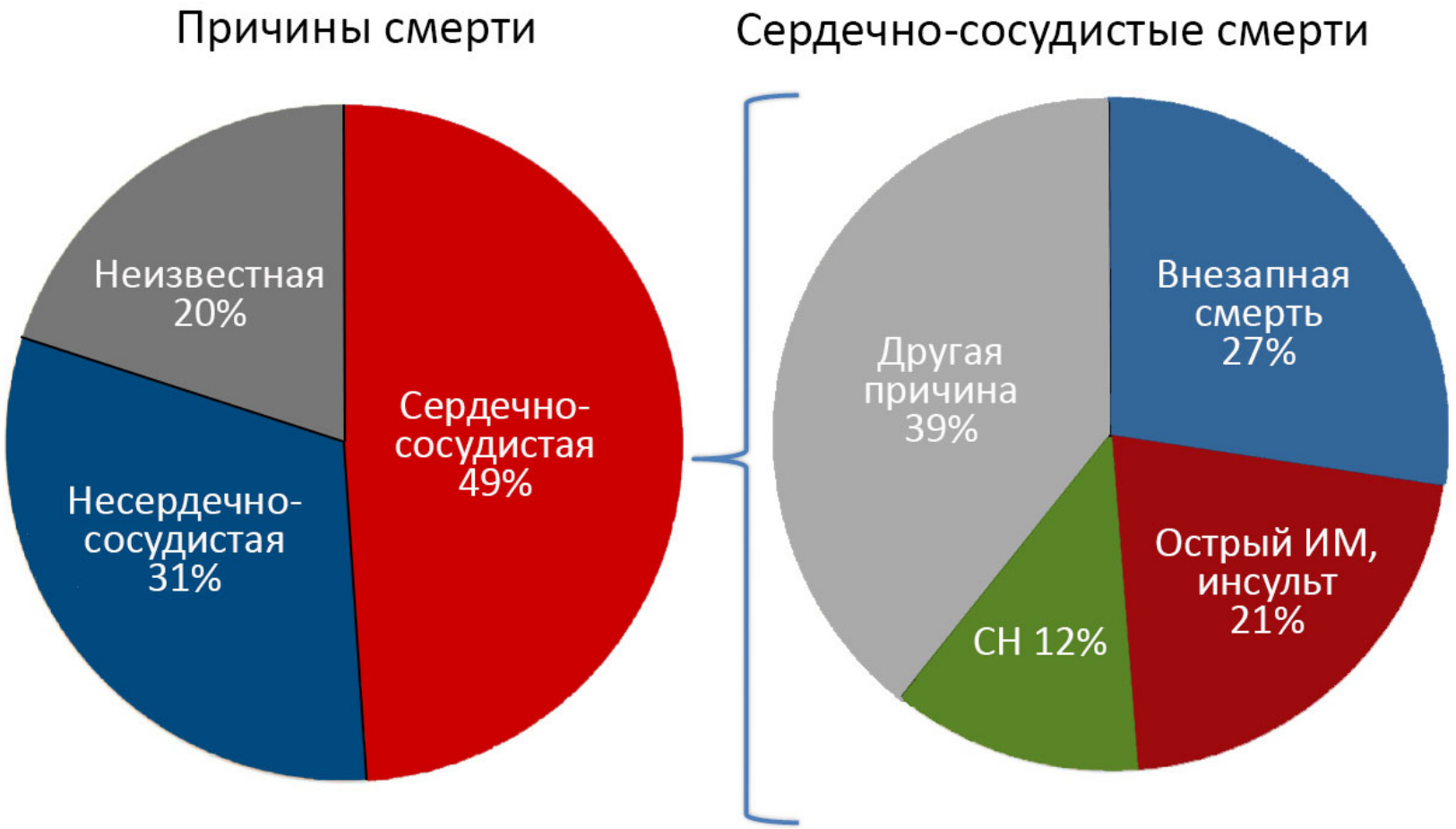
Edited by Dedov I.I., Shestakova M.V., Mayorov A.Yu.

9th Edition

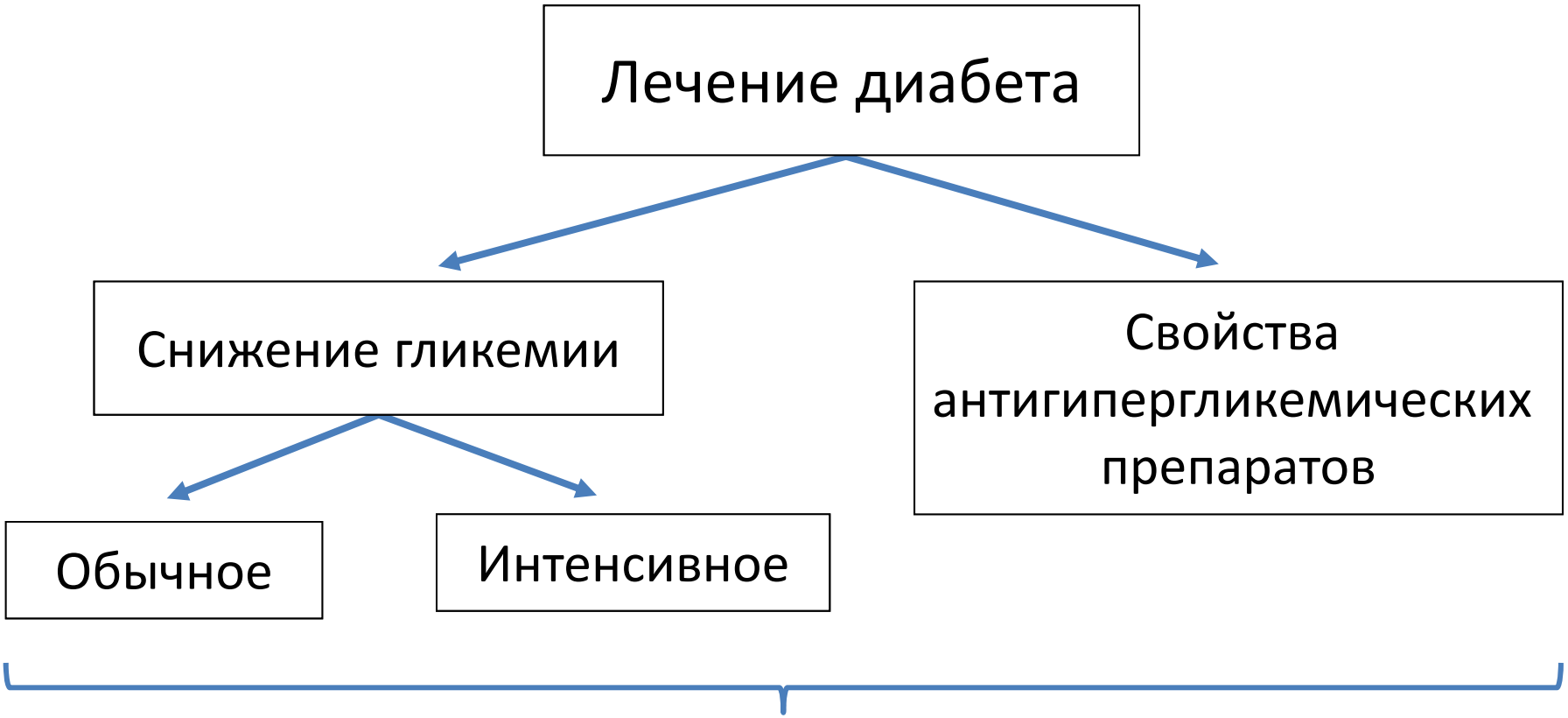
Москва
2019



Причины смерти от диабета



Sharma A, Green J, Dunning A, et al. Causes of Death in a Contemporary Cohort of Patients With Type 2 Diabetes and Atherosclerotic Cardiovascular Disease: Insights From the TECOS Trial. Diabetes Care. 2017;12:1763-1770.

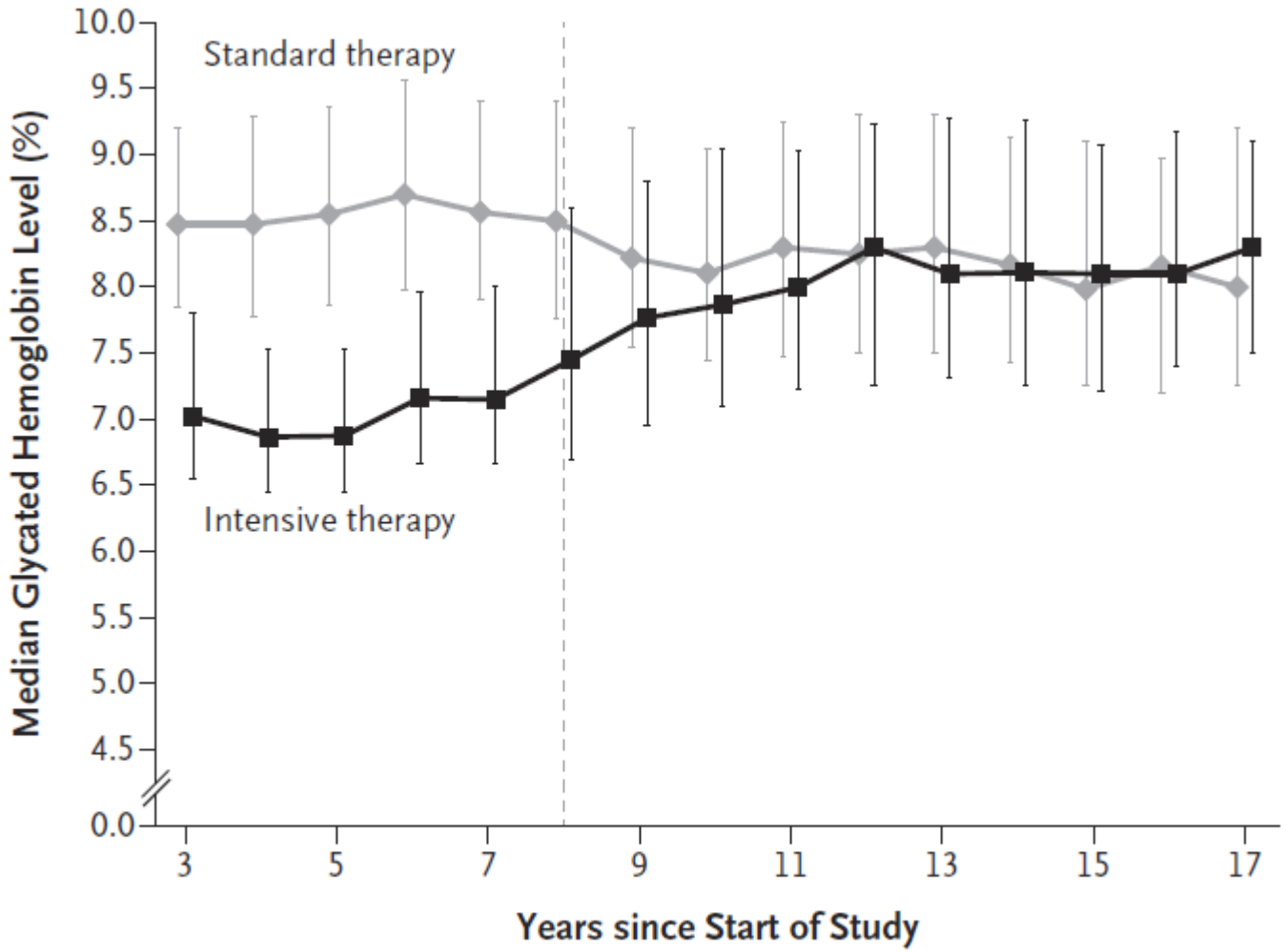


Смертность

Риск сердечно-сосудистых болезней

ТПН, ампутации, слепота

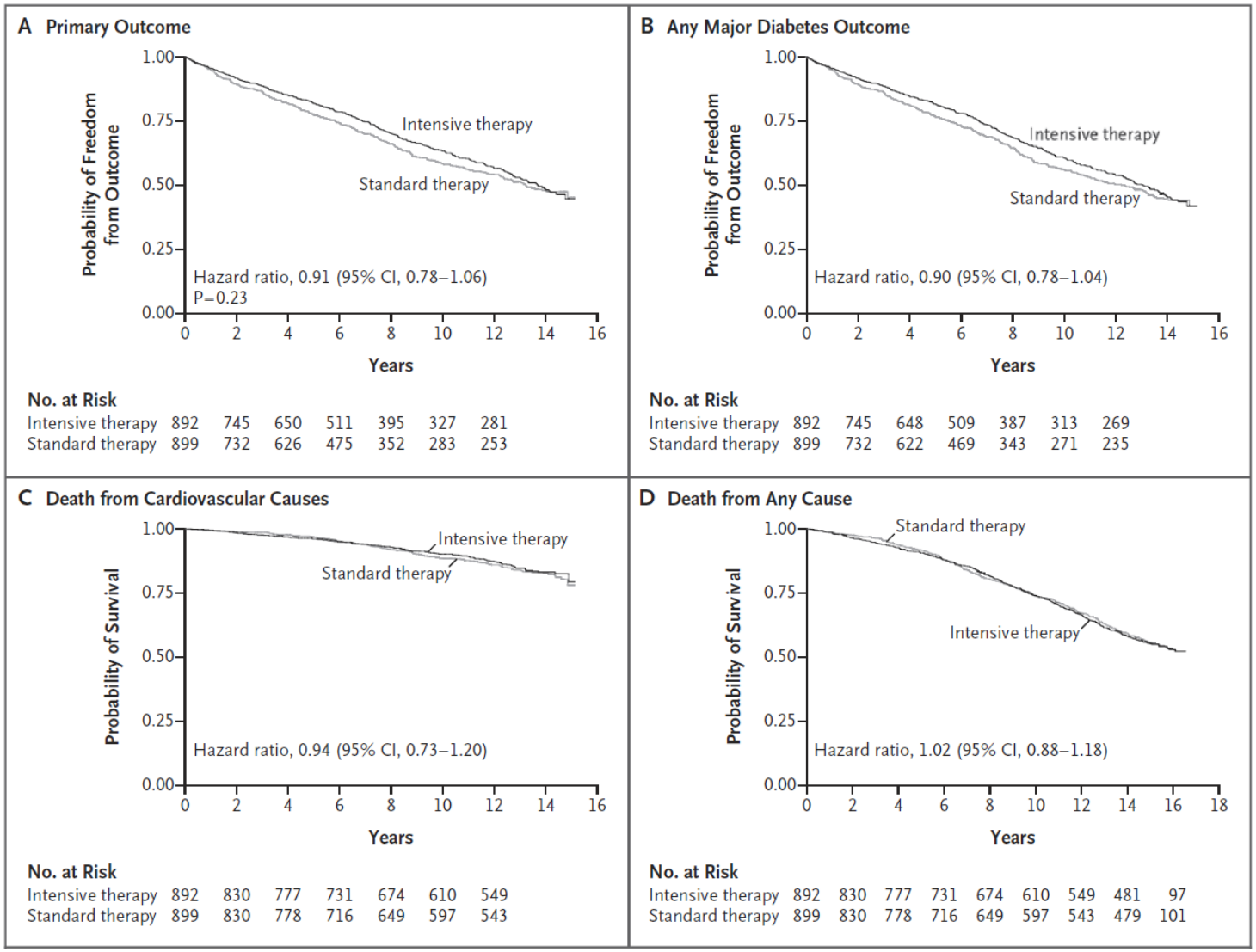
Интенсивная терапия диабета



VADT

Reaven P, Emanuele N, Wiitala W, et al. Intensive Glucose Control in Patients with Type 2 Diabetes — 15-Year Follow-up. N Engl J Med. 2019;23:2215-2224.

Интенсивная терапия диабета

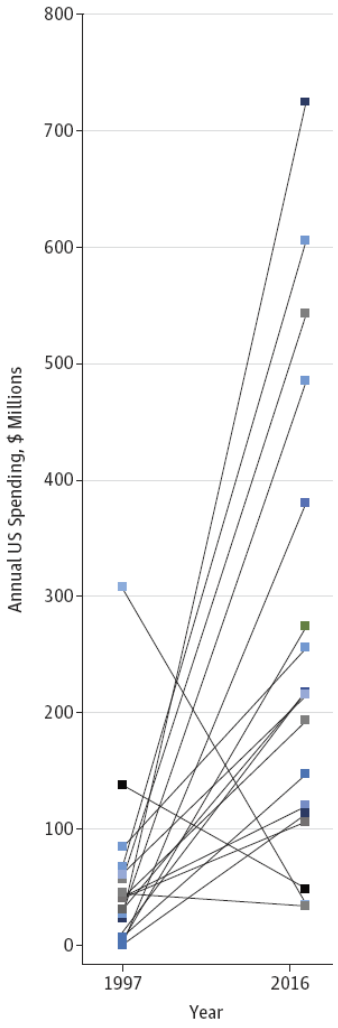


VADT

Reaven P, Emanuele N, Wiitala W, et al. Intensive Glucose Control in Patients with Type 2 Diabetes — 15-Year Follow-up. N Engl J Med. 2019;23:2215-2224.

Затраты на лекарства в США

Figure 3. Direct-to-Consumer Drug Advertising by Therapeutic Category

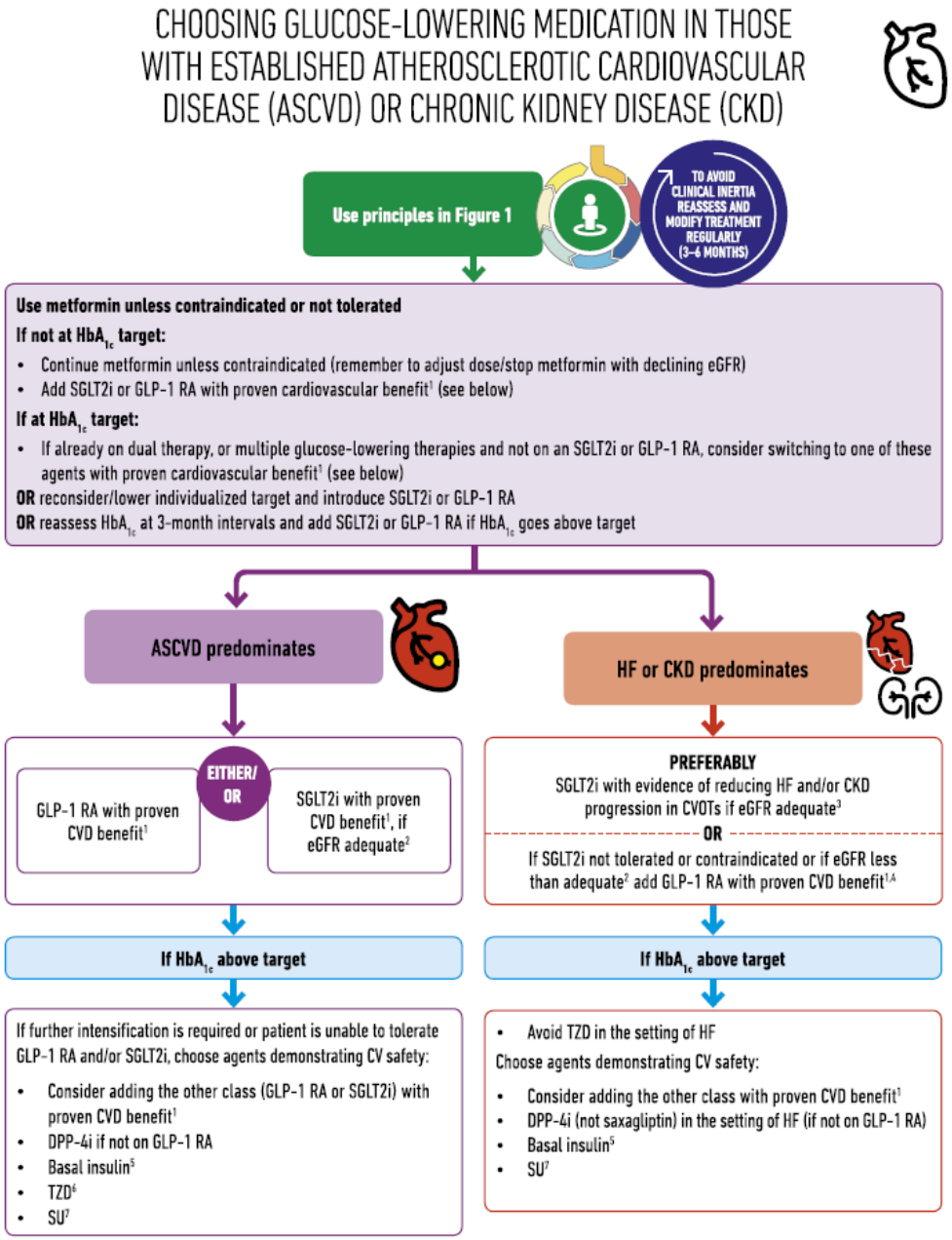


Therapeutic Category	US Spending, $ Millions 1997	2016	Top Advertised Drugs 1997	2016
Diabetes/endocrine	23	725	Glucophage, Humalog, Glucotrol XL	Trulicity, Farxiga, Victoza
Dermatology	67	605	Sporanox, Lamisil, Differen	Cosentyx, Humira, Otezla
Pain/central nervous system	56	542	Imitrex	Lyrica, Tecfidera, Botox
Cardiac	0	379	Not applicable	Eliquis, Entresto, Xarelto
Arthritis	27	484	Naprelan, Lodine XL, Relafen	Xeljanz, Humir, Orencia
Cancer	3	274	Novladex, Zofran, Taxol	Opdivo, Keytruda, Ibrance
Respiratory	84	255	Accolate, Serevent, Flovent	Breo, Symbicort, Anoro, Ellipta
Immunology	11	218	Crixivan, Combivir, Norvir	Prevnar, Gardasil, Trumenba
Infection	30	217	Zithromax, Havrix, Denavir	Harvoni, Tamiflu, Neulasta
Gastrointestinal	61	215	Prilosec, Propulsid, Helidac	Humira, Xifaxan, Viberzi
Depression	40	193	Prozac, Serzone, Paxil	Pristiq, Rexulti, Trintellix
Impotence	7	147	Erecaid, Caverject	Viagra, Cialis, Erecaid
Contraception	41	119	Ortho Tri-Cyclen, Depo-Provera, Norplant	Nexplanon, Skyla, Paragard
Ophthalmology	0	113	Not applicable	Restasis, Xiidra, Ciprodex
Menopause	40	106	Prempro, Premarin, Climara	Premarin, Estring, Osphena
Cholesterol	138	48	Pravachol, Zocor	Praluent, Crestor, Repatha
Allergy	307	35	Allegra, Claritin, Zyrtec	EpiPen, Pazeo, Dymista
Osteoporosis	44	33	Fosamax, Miacalcin	Prolia, Forteo, Synvisc

Дулаглутид, дапаглифлозин, лираглутид

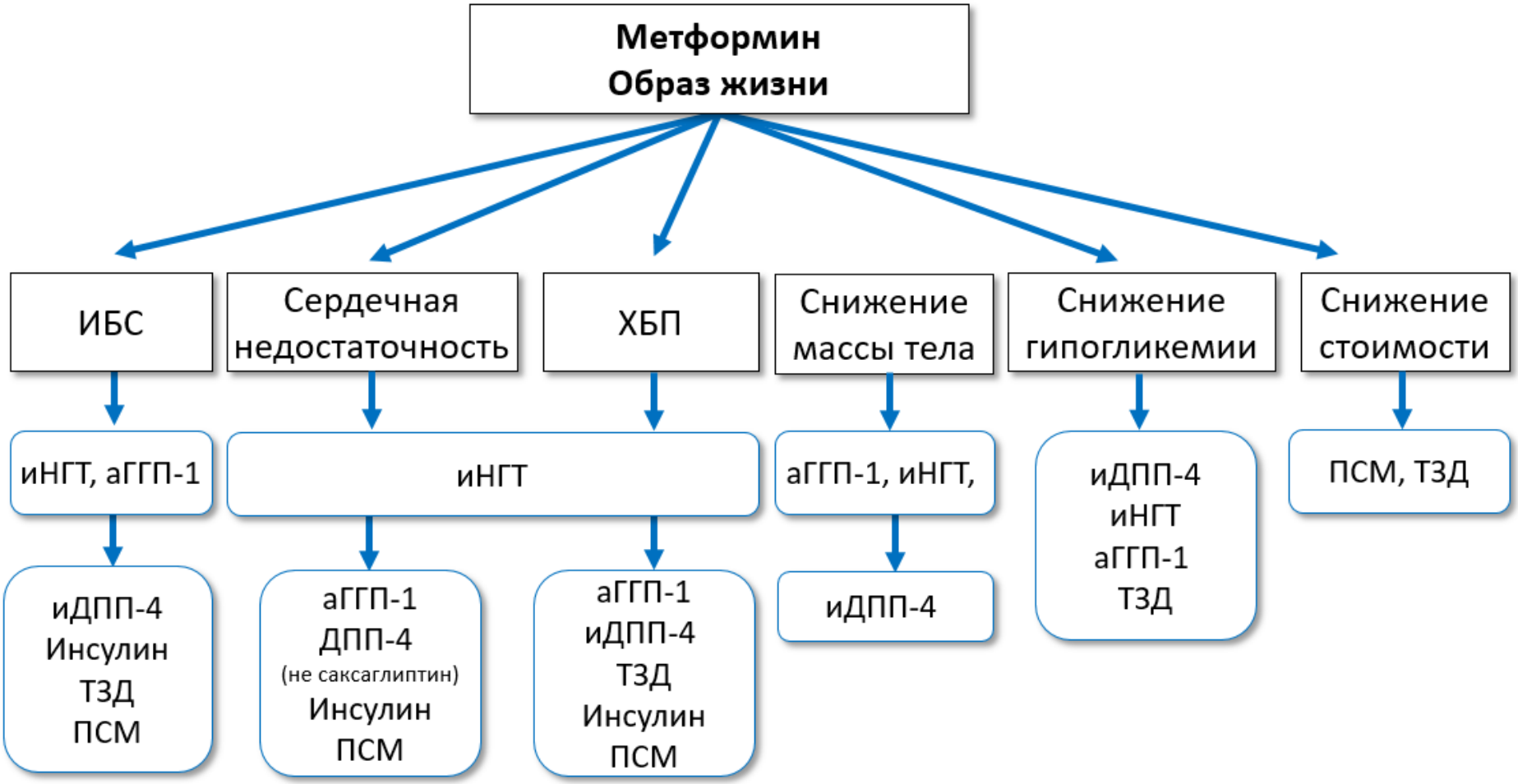
Апиксабан, сакубитрил/валсартан, ривароксабан

Schwartz LM, Woloshin S. Medical Marketing in the United States, 1997-2016. JAMA. 2019;321(1):80–96.



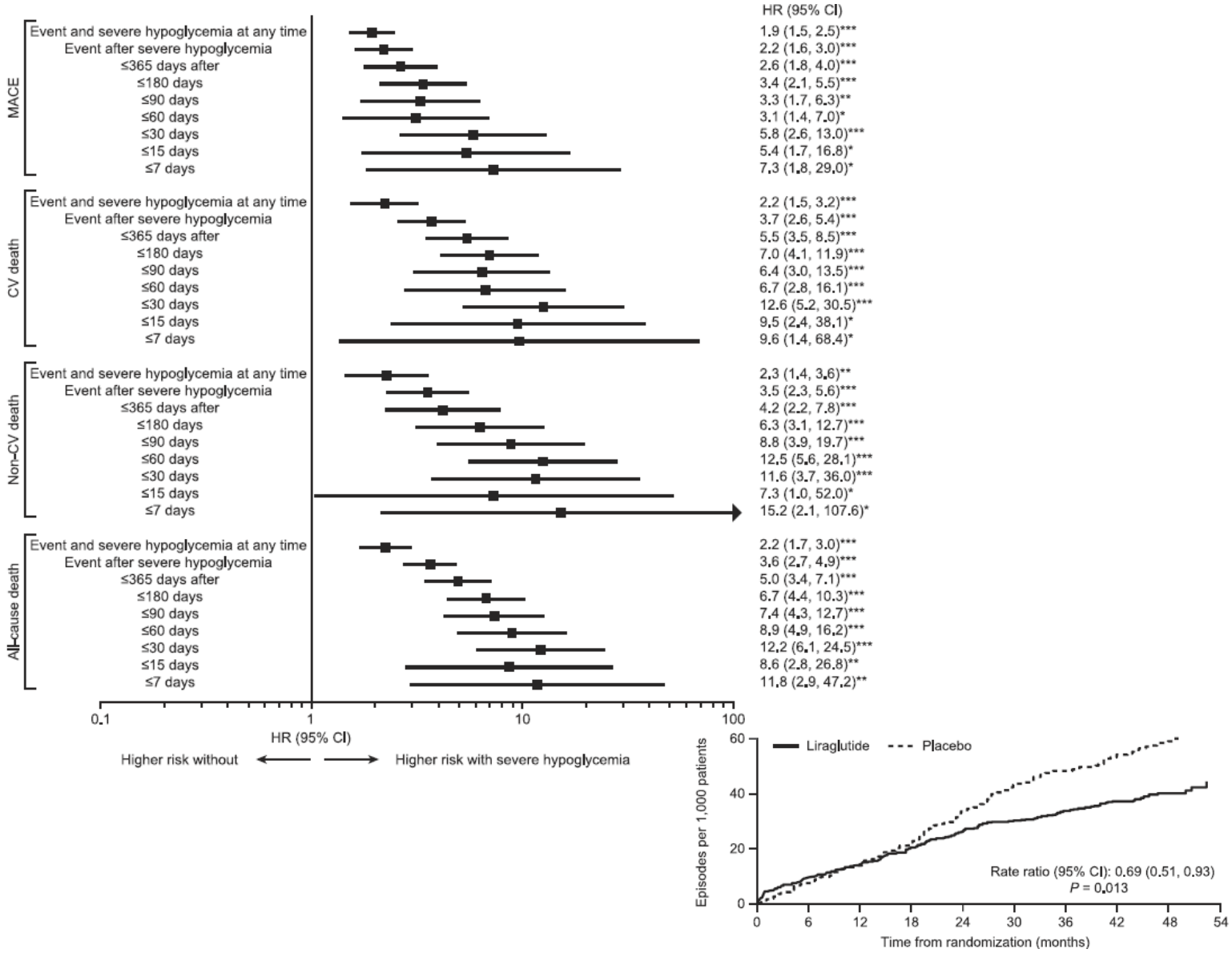
Davies M, D'Alessio D, Fradkin J, et al. Management of Hyperglycemia in Type 2 Diabetes, 2018. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. 2018.

Лечение диабета 2 типа



American Diabetes Association. Standards of medical care in diabetes—2019. Diabetes Care. 2018;42(Suppl 1).

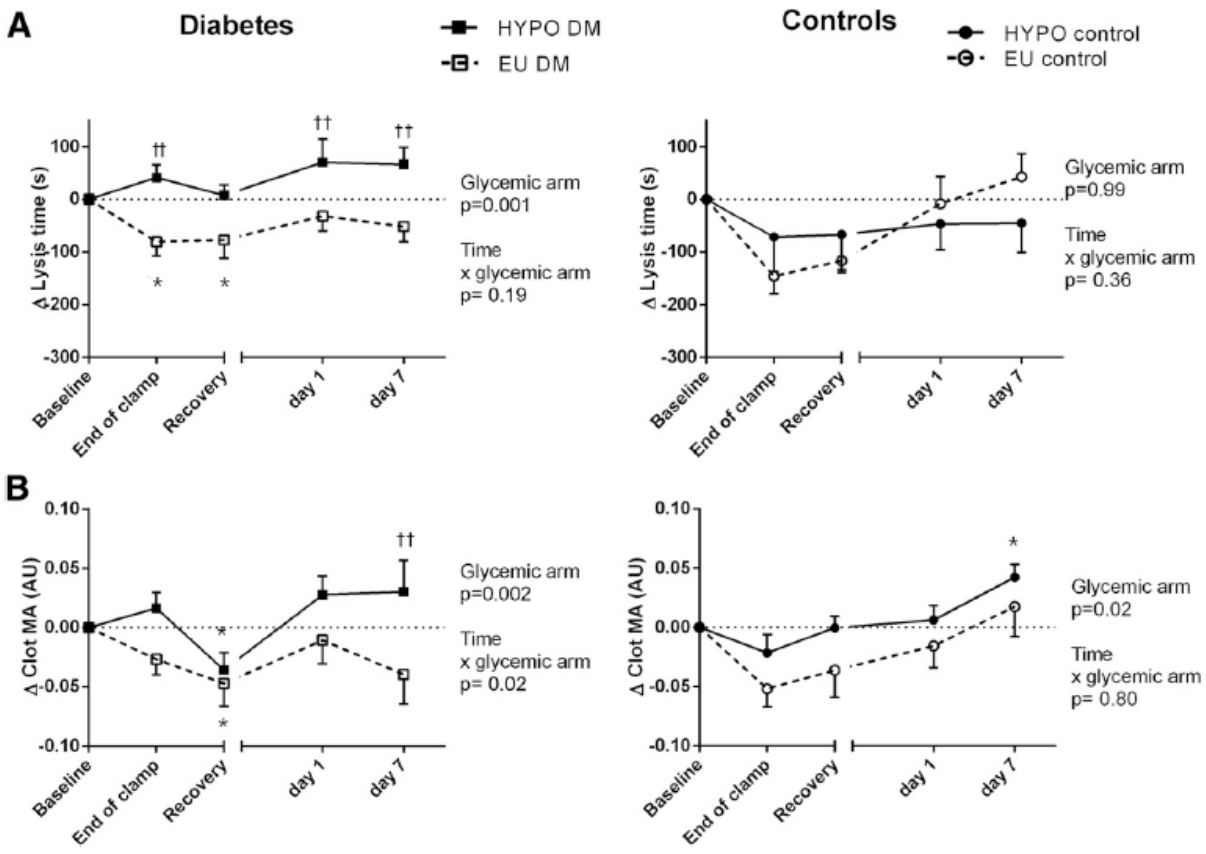
Гипогликемия и СС риски



LEADER

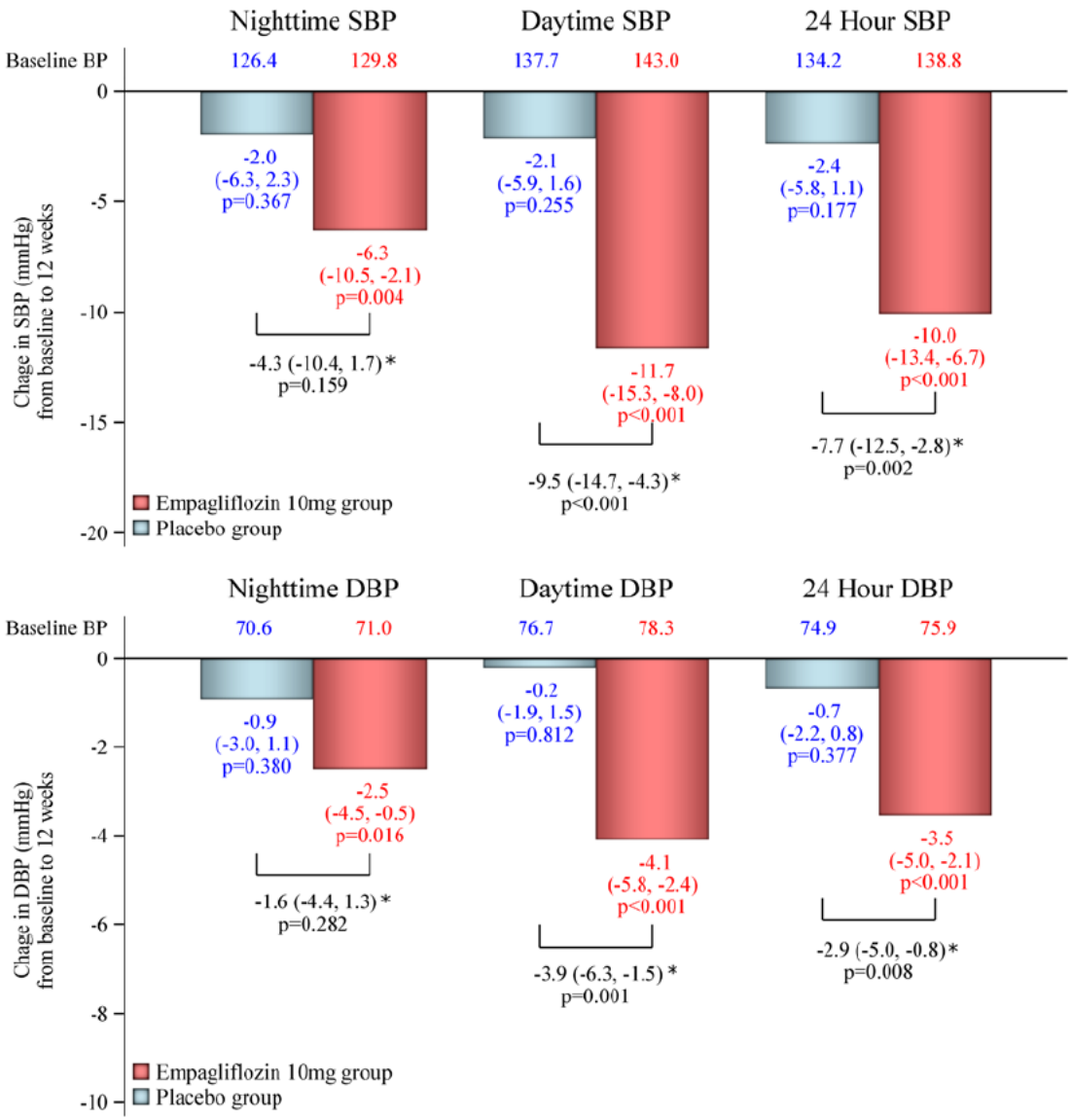
Zinman B, Marso S, Christiansen E, et al. Hypoglycemia, Cardiovascular Outcomes, and Death: The LEADER Experience. Diabetes Care. 2018;8:1783-1791.

Длительность протромботического эффекта гипогликемии



Chow E, Iqbal A, Walkinshaw E, et al. Prolonged Prothrombotic Effects of Antecedent Hypoglycemia in Individuals With Type 2 Diabetes. Diabetes Care. 2018;12:2625-2633.

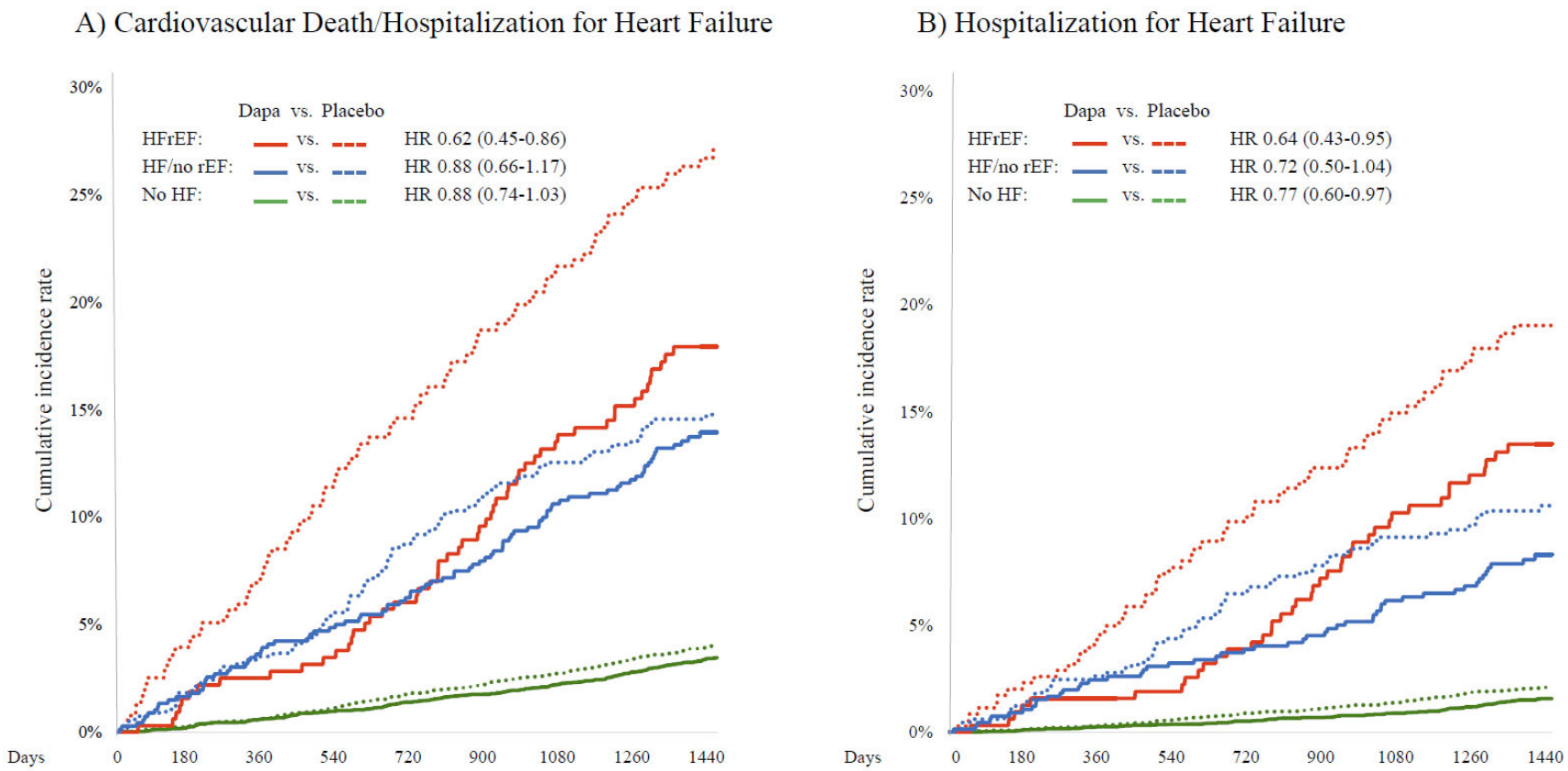
Эмпаглифлозин и суточное АД



SACRA

Kario Kazuomi, Okada Kenta, Kato Mitsutoshi, et al. 24-Hour Blood Pressure-Lowering Effect of an SGLT-2 Inhibitor in Patients with Diabetes and Uncontrolled Nocturnal Hypertension: Results from the Randomized, Placebo-Controlled SACRA Study. Circulation. 2019;139:2089–2097.

Дапаглифлозин при СН

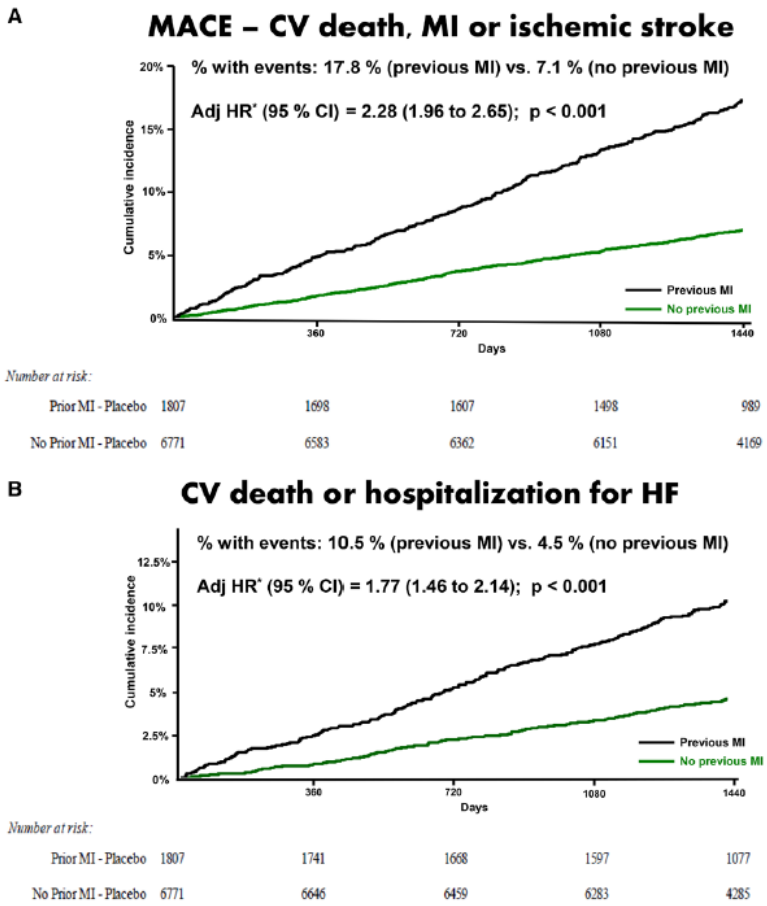


Дапаглифлозин снижает госпитализации при СН, сердечно-сосудистую и общую смертность у пациентов с нФВЛЖ

DECLARE-TIMI 58

Kato Eri T, Silverman Michael G, Mosenzon Ofri, et al. Effect of Dapagliflozin on Heart Failure and Mortality in Type 2 Diabetes Mellitus . Circulation. 2019;139:2528–2536.

Дапаглифлозин у пациентов после ИМ

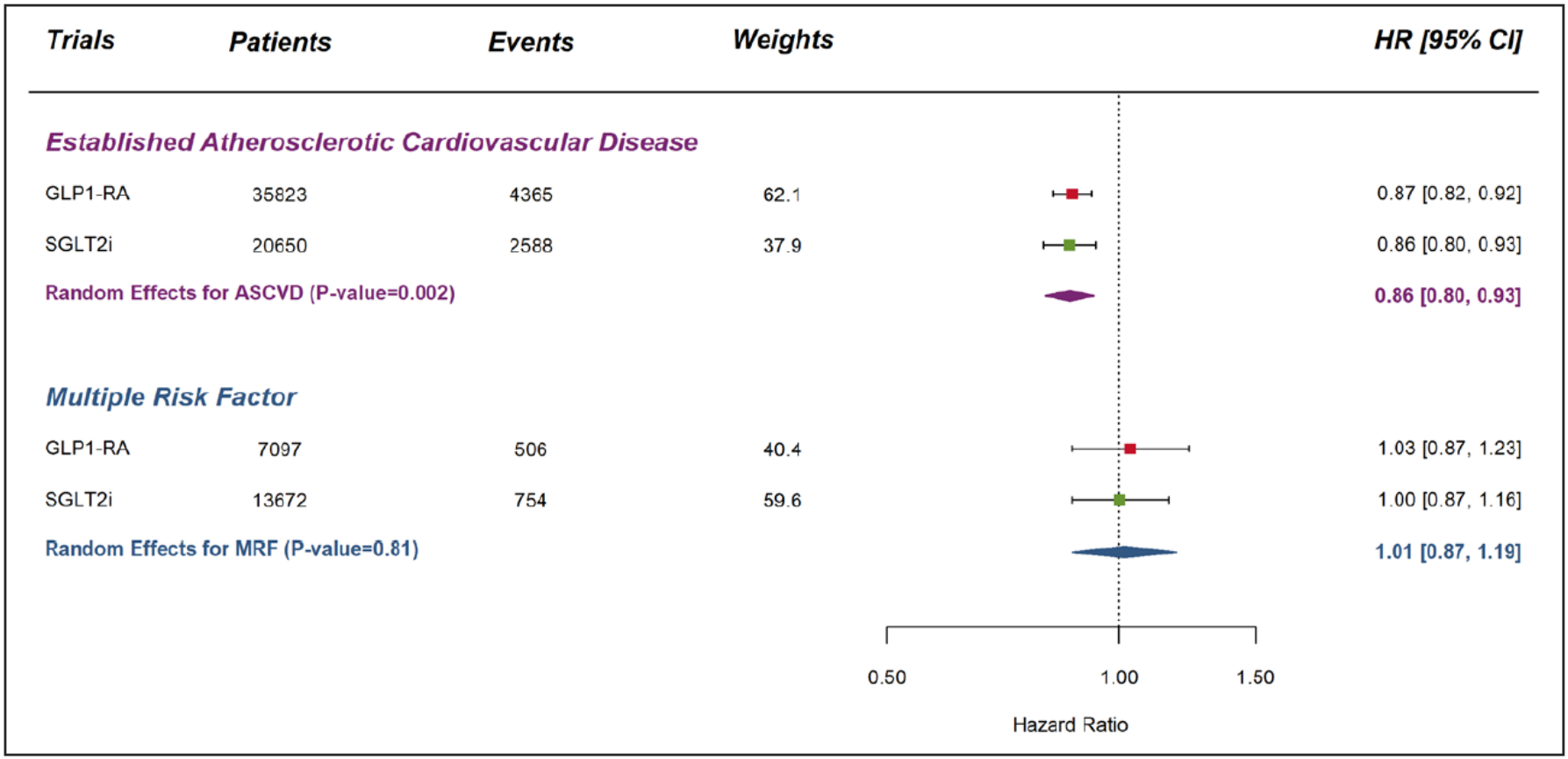


Дапаглифлозин может снизить риск сердечно-сосудистых событий госпитализаций с СН у пациентов после ИМ

DECLARE-TIMI 58

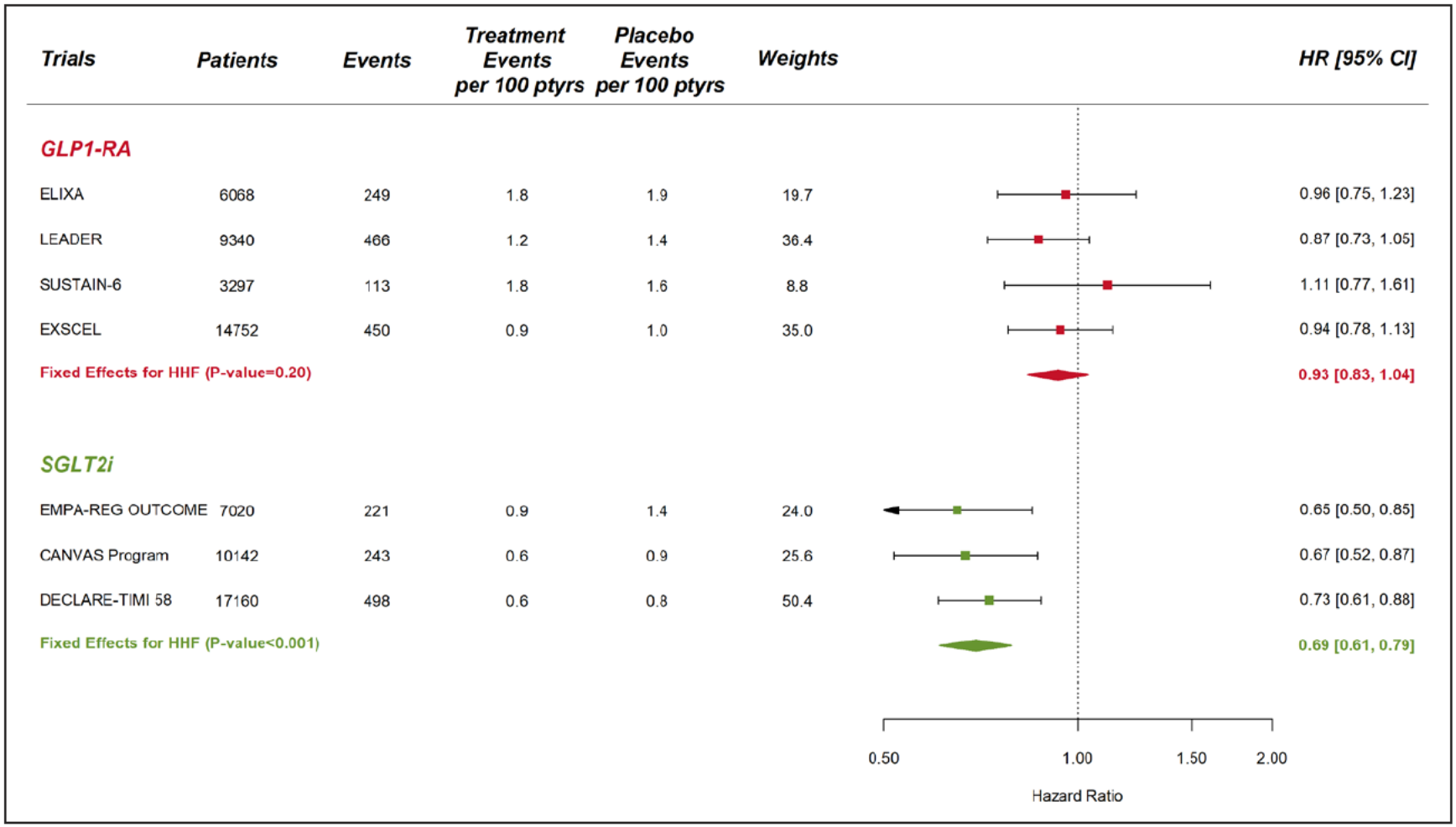
Furtado Remo HM., Bonaca Marc P, Raz Itamar, et al. Dapagliflozin and Cardiovascular Outcomes in Patients With Type 2 Diabetes Mellitus and Previous Myocardial Infarction. Circulation. 2019;22:2516-2527.

ИНГТ-2 и аГПП-1 для профилактики ССЗ



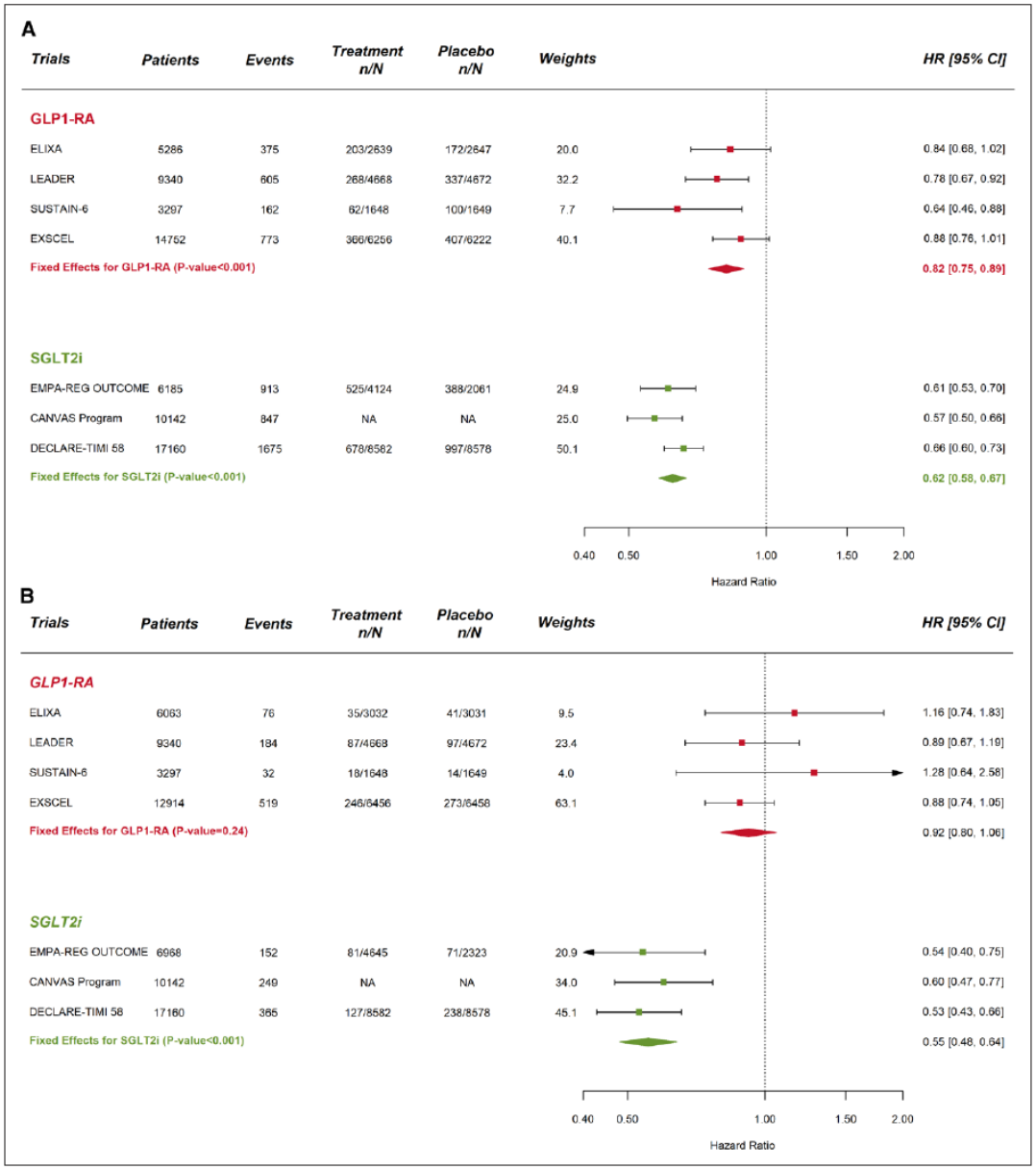
Zelniker Thomas A, Wiviott Stephen D, Raz Itamar, et al. Comparison of the Effects of Glucagon-Like Peptide Receptor Agonists and Sodium-Glucose Cotransporter 2 Inhibitors for Prevention of Major Adverse Cardiovascular and Renal Outcomes in Type 2 Diabetes Mellitus. Circulation. 2019;17:2022-2031.

ИНГТ-2 и аГПП-1 для профилактики госпитализаций с СН



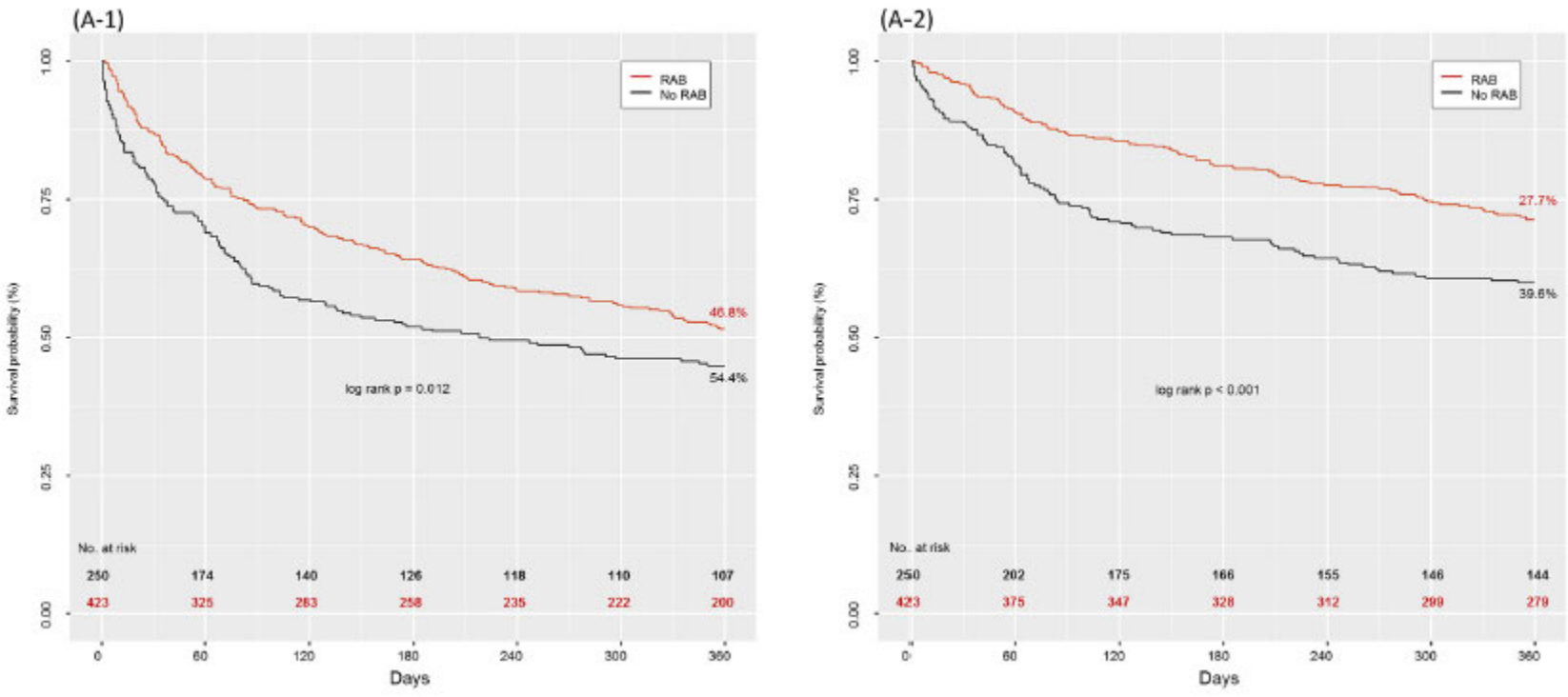
Zelniker Thomas A, Wiviott Stephen D, Raz Itamar, et al. Comparison of the Effects of Glucagon-Like Peptide Receptor Agonists and Sodium-Glucose Cotransporter 2 Inhibitors for Prevention of Major Adverse Cardiovascular and Renal Outcomes in Type 2 Diabetes Mellitus. Circulation. 2019;17:2022-2031.

ИНГТ-2 и аГПП-1 для профилактики ХБП



Zelniker Thomas A, Wiviott Stephen D, Raz Itamar, et al. Comparison of the Effects of Glucagon-Like Peptide Receptor Agonists and Sodium-Glucose Cotransporter 2 Inhibitors for Prevention of Major Adverse Cardiovascular and Renal Outcomes in Type 2 Diabetes Mellitus. Circulation. 2019;17:2022-2031.

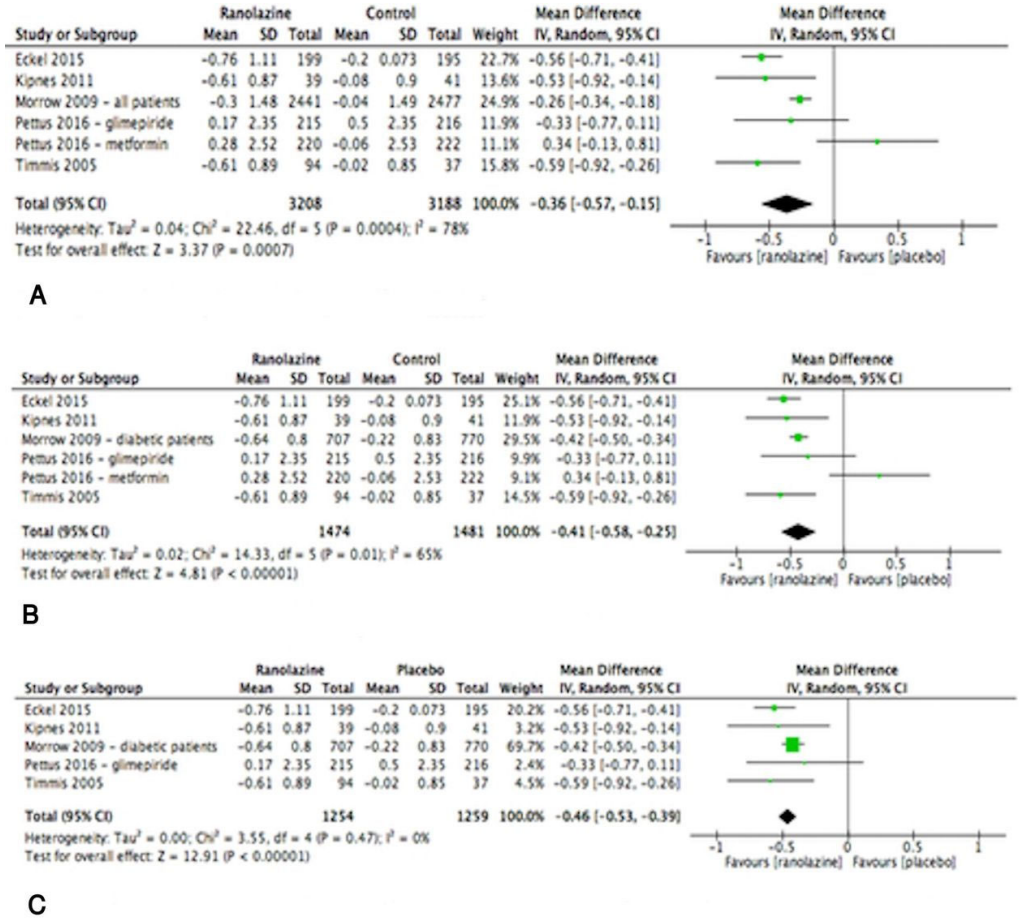
иАПФ/БРА при СН и выраженной ХБП



иАПФ и БРА сохраняют эффективность при выраженной дисфункции почек с рСКФ <30 мл/мин/1,73 м^2

Jang S, Chae S, Bae M, et al. Effect of renin-angiotensin system blockade in patients with severe renal insufficiency and heart failure. International Journal of Cardiology. 2018;266:180-186.

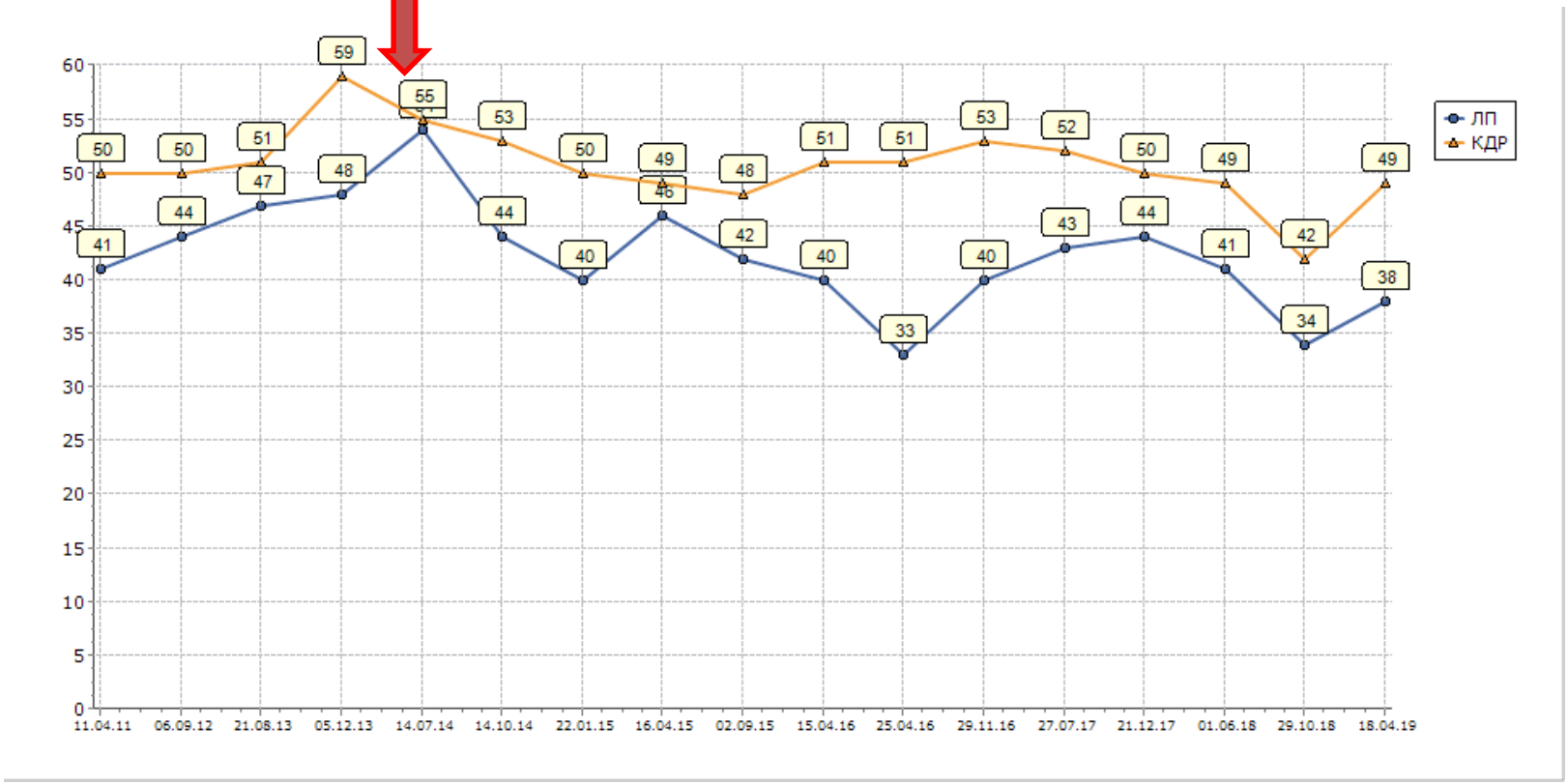
Ранолазин и гликемия



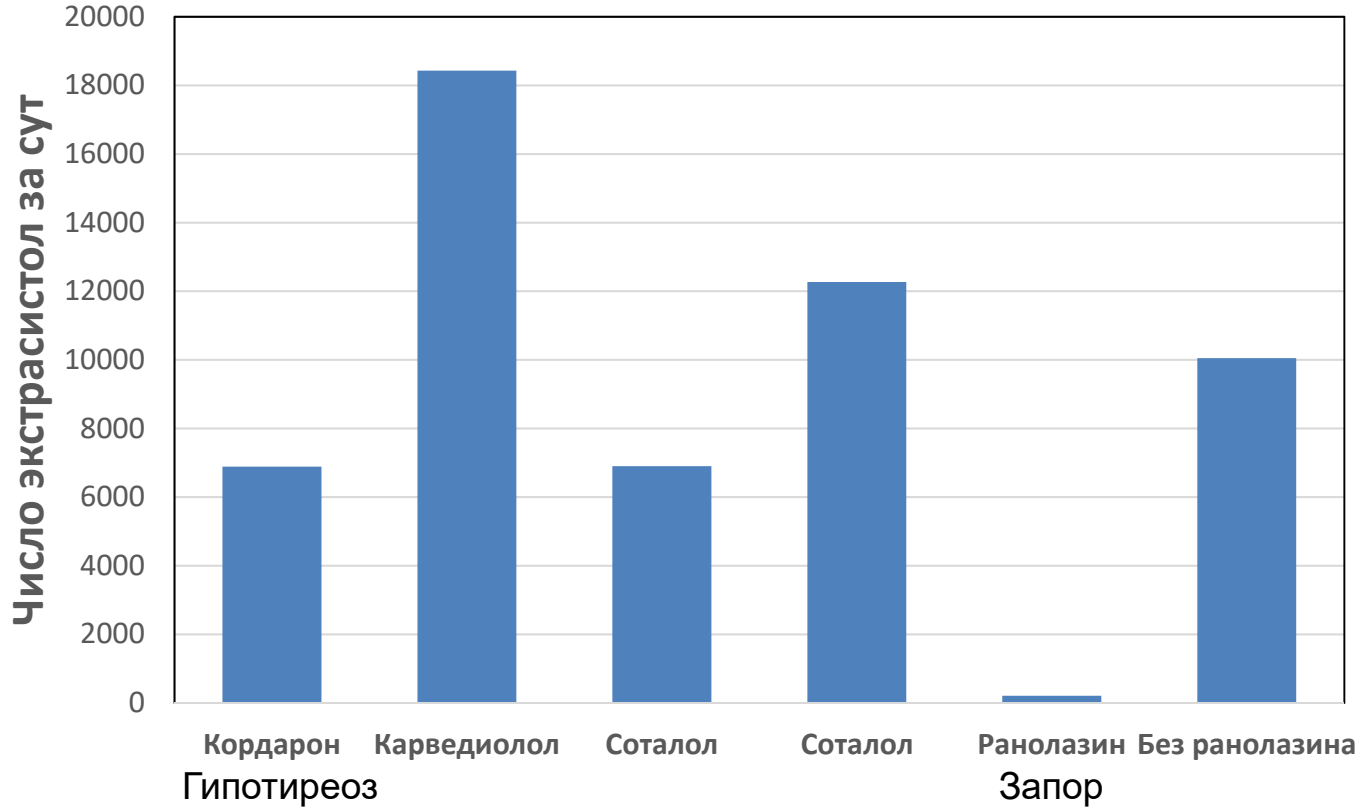
Teoh IH, Banerjee M Effect of ranolazine on glycaemia in adults with and without diabetes: a meta-analysis of randomised controlled trials Open Heart 2019;5:e000706.

Пациентка Л., 67 лет

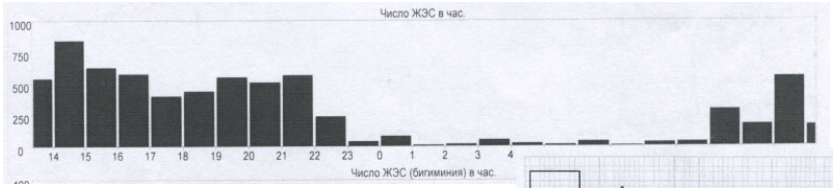
Пластика
митрального клапана

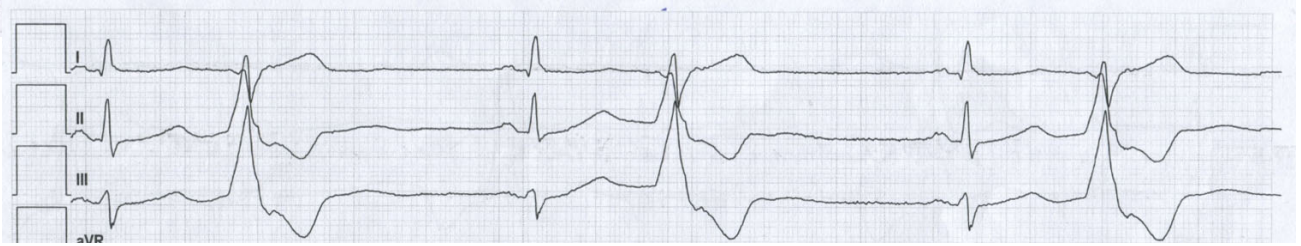


Пациентка Л., 67 лет



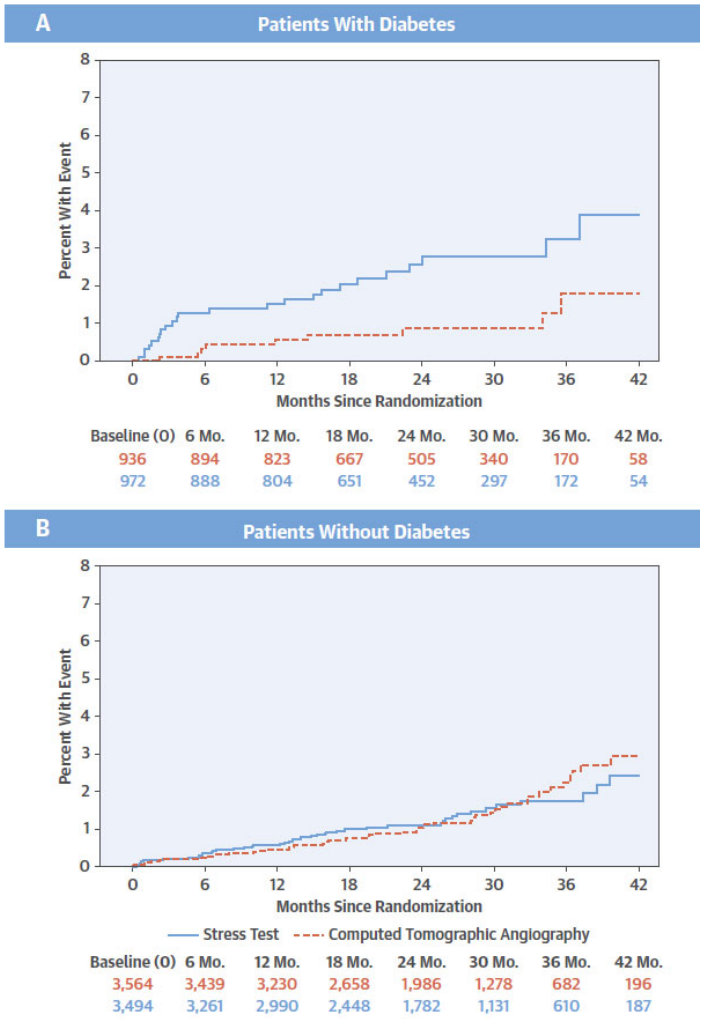
Нет эффекта: карведилол, верапамил, кордарон, соталол, этацизин, пропафенон





Ишемическая болезнь сердца

КТ ангиография против стресс-теста при диабете

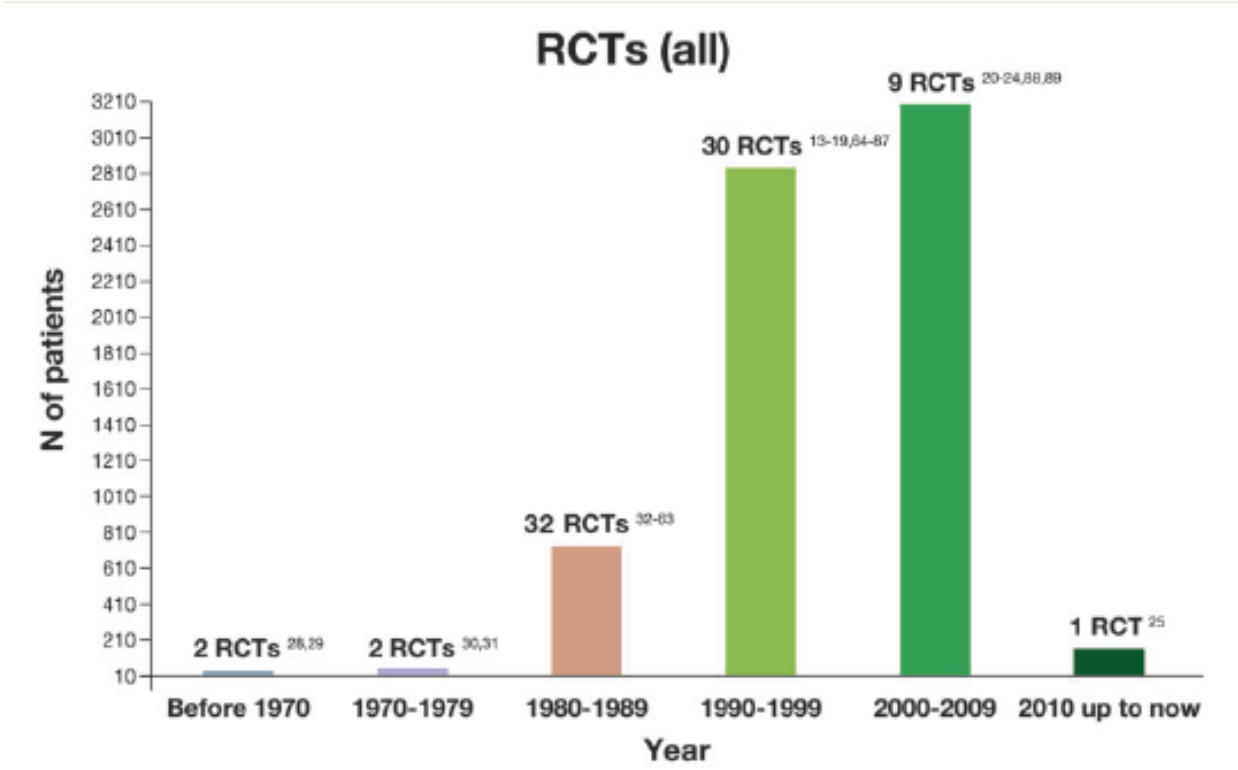


КТ ангиография снижает риск ССЗ по сравнению со стресс-тестом

PROMISE

Sharma A, Coles A, Sekaran N, et al. Stress Testing Versus CT Angiography in Patients With Diabetes and Suspected Coronary Artery Disease. Journal of the American College of Cardiology. 2019;8:893-902.

Исследования антиангинальных медикаментов



Ferrari R, Pavasini R, Camici P, et al. Anti-anginal drugs–beliefs and evidence: systematic review covering 50 years of medical treatment. European Heart Journal. 2019;2:190-194.

Новая классификация антиаритмиков

Id

Id	Nav1.5 late current	Reduction in late Na^+ current (I_{NaL}), affecting AP recovery, refractoriness, repolarization reserve, and QT interval[22,32]	Ranolazine	Stable angina, ventricular tachycardia As a potential new class of drugs for the management of tachyarrhythmias	Decrease in AP recovery time Reduction in EAD-induced triggered activity

IIIa

K^+ channel blockers and openers						
III						
Voltage dependent K^+ channel blockers	IIIa	Nonselective K^+ channel blockers	Block of multiple K^+ channel targets resulting in prolonged atrial, Purkinje, and/or ventricular myocyte AP recovery, increased ERP, and reduced repolarization reserve; prolonged QT intervals[35,40,41]	Ambasilide, amiodarone, dronedarone	Ventricular tachycardia in patients without structural heart disease or with remote myocardial infarction; tachyarrhythmias with Wolff-Parkinson-White syndrome Atrial fibrillation with atrioventricular conduction via accessory pathway Ventricular fibrillation and premature ventricular contraction Tachyarrhythmias associated with supraventricular arrhythmias and atrial fibrillation[24–27]	Increase in AP recovery time Increase in refractory period, with decreased reentrant tendency Note: amiodarone also slows sinus node rate and atrioventricular conduction; see Table 2[16,29]
		Kv11.1 (HERG) channel–mediated rapid K^+ current (I_{Kr}) blockers	Prolonged atrial, Purkinje, and ventricular myocyte AP recovery, increased ERP, and reduced repolarization reserve; prolonged QT intervals[41]	Dofetilide, ibutilide, sotalol	Ventricular tachycardia in patients without structural heart disease or with remote myocardial infarction Tachyarrhythmias associated with Wolff-Parkinson-White syndrome Atrial fibrillation with atrioventricular conduction via accessory	Increase in AP recovery time Increase in refractory period with decreased reentrant tendency[16,29,42]

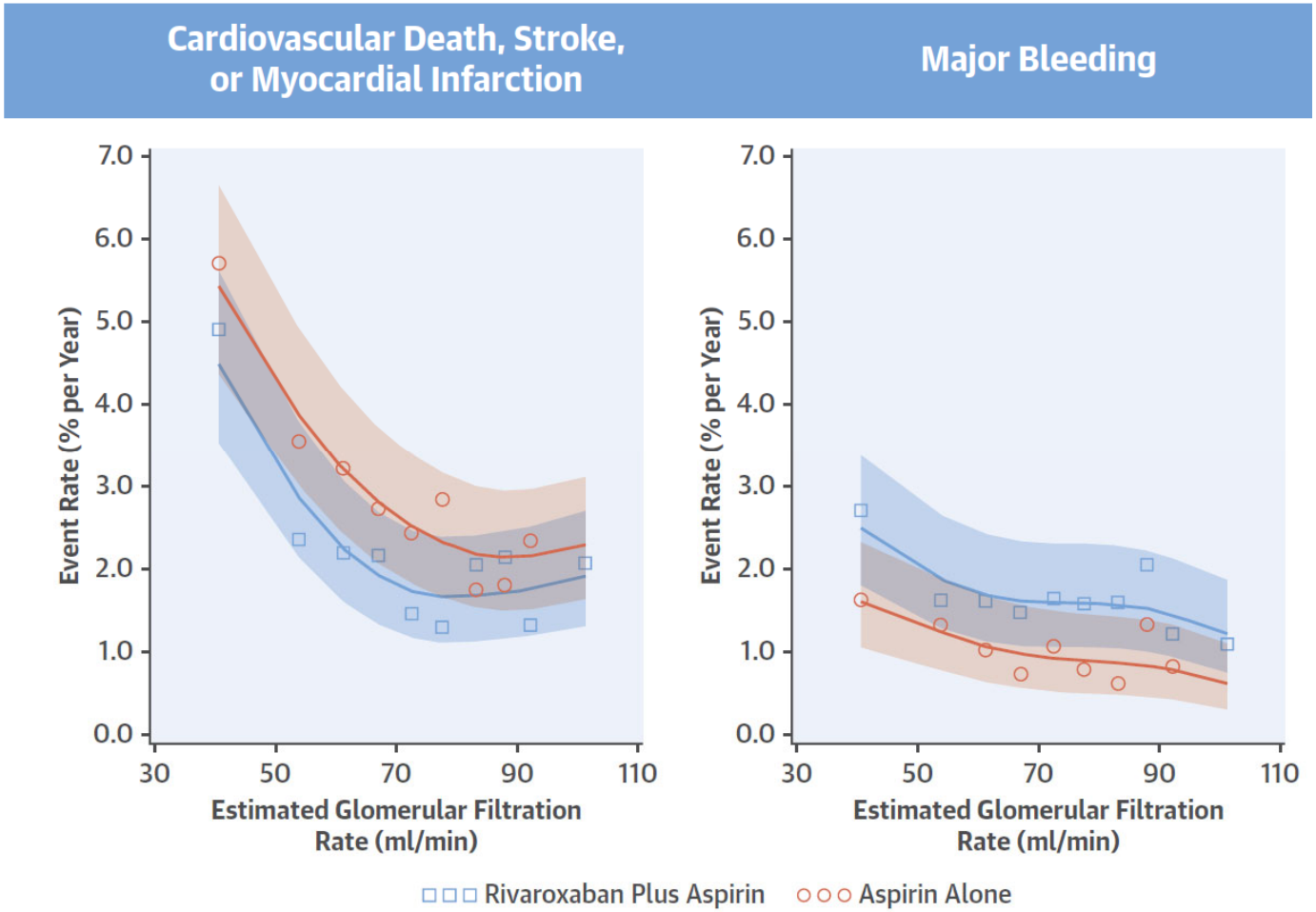
Никорандил обладает антиаритмическим потенциалом

IIIb

		$K_v1.4$ and $K_v4.2$ channel–mediated transient outward K^+ current (I_{to1}) blockers	Prolonged atrial, Purkinje, and ventricular myocyte AP recovery, increased ERP, and reduced repolarization reserve, particularly in subepicardial as opposed to subendocardial ventricular cardiomyocytes[35,41]	Blocker under regulatory review for the acute conversion of atrial fibrillation: tedisamil		Increase in AP recovery time; increase in refractory period, with decreased reentrant tendency[29]
Metabolically dependent K^+ channel openers	IIIb	Kir6.2 (I_{KATP}) openers	Opening of ATP-sensitive K^+ channels (I_{KATP}), shortening AP recovery, refractoriness, and repolarization reserve in all cardiomyocytes apart from SAN cells; shortened QT intervals[35,44,45]	Nicorandil, pinacidil	Nicorandil: treatment of stable angina (second line); pinacidil: investigational drug for the treatment of hypertension	Potential decrease in AP recovery time

Lei M, Wu L, Terrar D, Huang C. Modernized Classification of Cardiac Antiarrhythmic Drugs. Circulation. 2018;138:1879–1896.

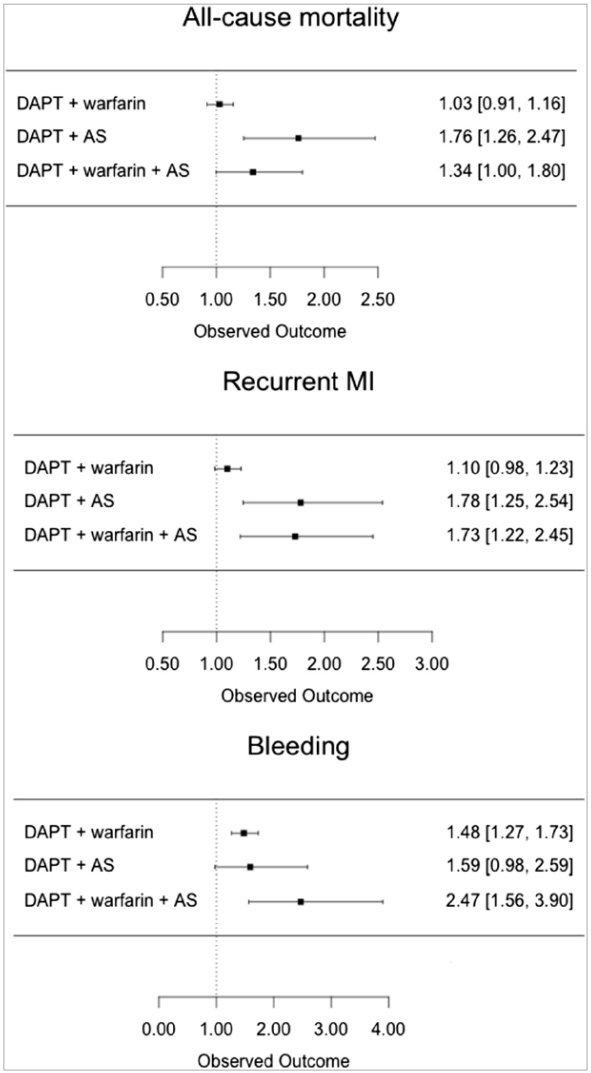
Аспирин ± ривароксабан при ХБП



Польза комбинированной терапии сохраняется при умеренной дисфункции почек

Fox K, Eikelboom J, Shestakovska O, et al. Rivaroxaban Plus Aspirin in Patients With Vascular Disease and Renal Dysfunction. Journal of the American College of Cardiology. 2019;18:2243-2250.

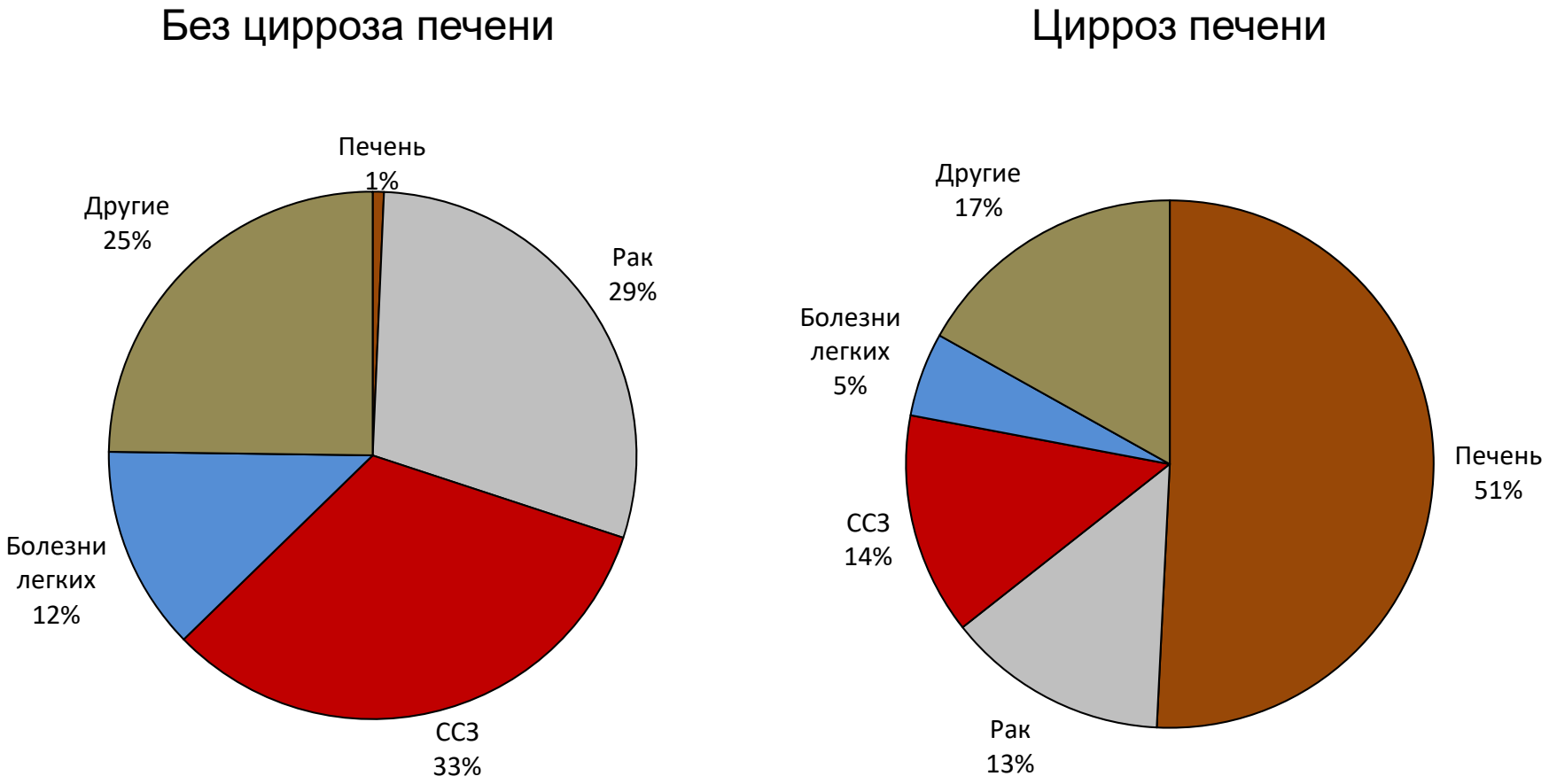
ДАТ после ИМ при аортальном стенозе



При аортальном стенозе возрастает риск смерти, ИМ и кровотечений

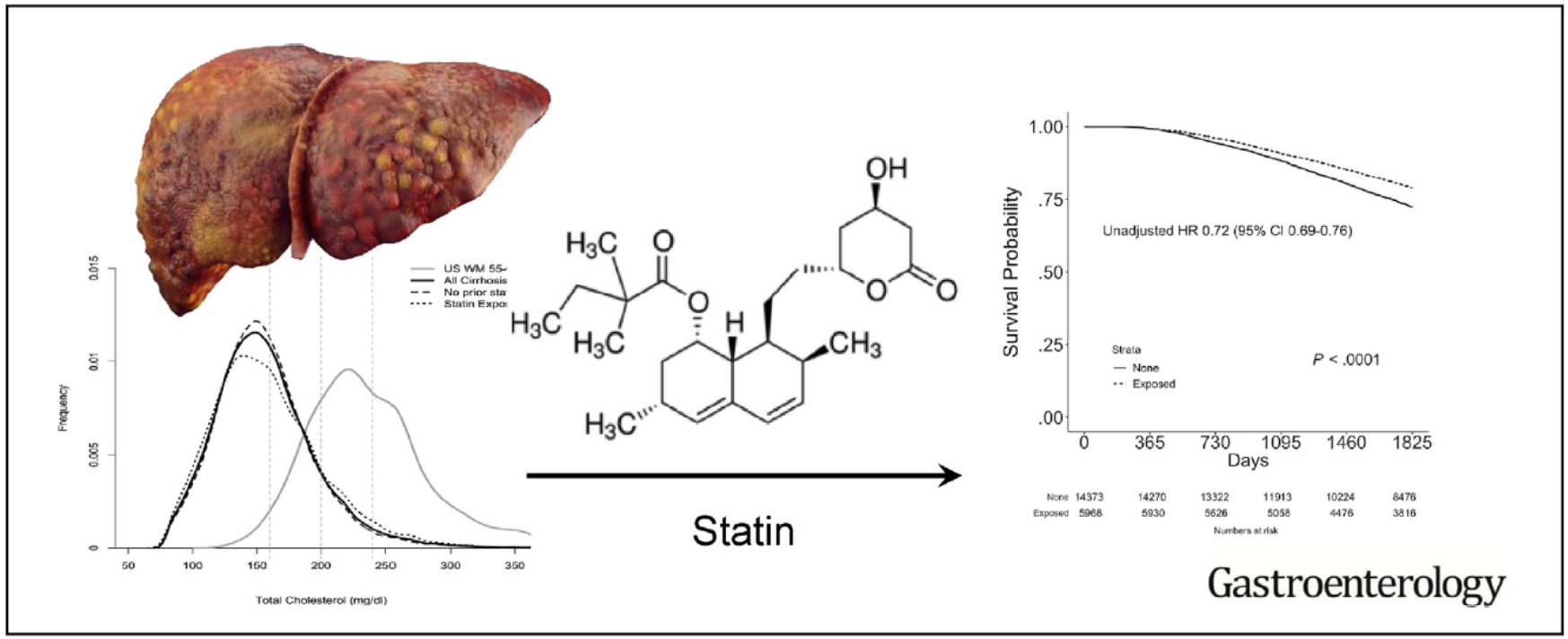
Martinsson A, Li X, Torp-Pedersen C, et al. Outcomes associated with dual antiplatelet therapy after myocardial infarction in patients with aortic stenosis. International Journal of Cardiology. 2019;281:140-145.

Причины смерти при циррозе печени



Ratib S, Fleming KM, Crooks CJ, et al. Causes of death in people with liver cirrhosis in England compared with the general population: a population-based cohort study. Am J Gastroenterol. 2015;110(8):1149-58.

Статины, цирроз печени и выживаемость



Статины снизили смертность на 8-9% ежегодно у пациентов с циррозом печени класса A-B

Kaplan D, Serper M, Mehta R, et al. Effects of Hypercholesterolemia and Statin Exposure on Survival in a Large National Cohort of Patients With Cirrhosis. Gastroenterology. 2019;6:1693-1706.e12.

Статины и цирроз печени

Recommendations

- In patients with decompensated cirrhosis, the aetiological factor, should be removed, particularly alcohol consumption and hepatitis B or C virus infection as this strategy is associated with decreased risk of decompensation and increased survival **(II-2,1)**.
- Strategies based on targeting abnormalities in gut-liver axis by antibiotic administration (*i.e.* rifaximin), improving the disturbed systemic circulatory function (*i.e.* long-term albumin administration), decreasing the inflammatory state (*i.e.* statins), and reducing portal hypertension (*i.e.* beta-blockers) have shown potential benefit to decrease cirrhosis progression in patients with decompensated cirrhosis. However, further clinical research is needed with these strategies to confirm their safety and potential benefits as therapeutic approaches with the aim of preventing cirrhosis progression in decompensated patients.

EASL Clinical Practice Guidelines for the management of patients with decompensated cirrhosis☆

European Association for the Study of the Liver*

Статины и коморбидные болезни

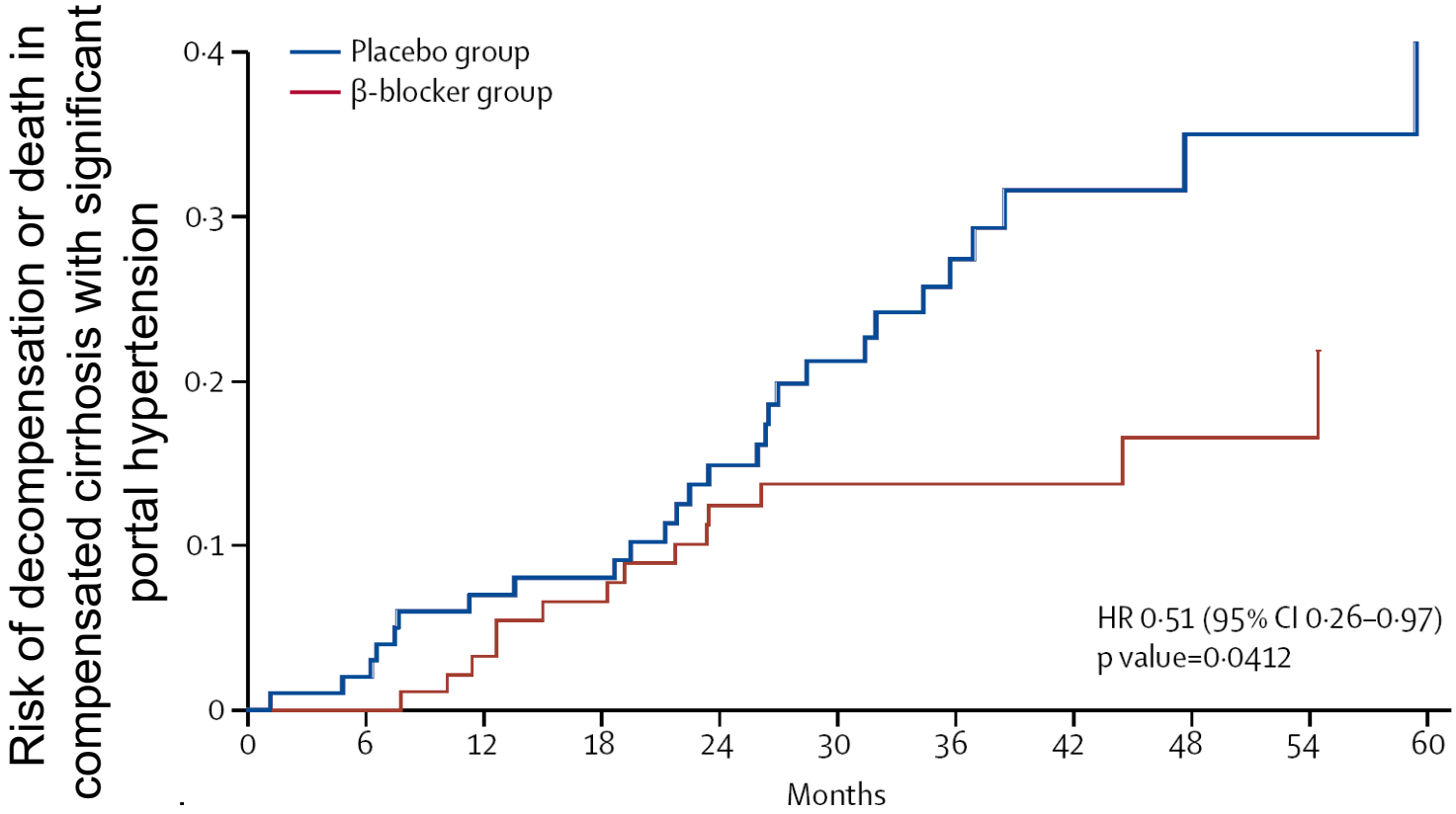
Table 3. Comparison of Overlapping Results Between Meta-analyses of Observational Studies and of RCTs

Outcome	Population	Metric	Effect (95% CI)*		P_{Het}†	Concordance‡
			Observational Studies	RCTs		
Mortality or survival						
ARDS mortality	ALI/ARDS	RR	1.05 (0.78 to 1.40)	0.99 (0.78 to 1.26)	0.760	Both NS
All-cause mortality	COPD	HR	0.73 (0.64 to 0.83)	0.98 (0.60 to 1.59)	0.252	S observational studies only
Infection-related mortality	Infection	OR	0.78 (0.64 to 0.95)	0.84 (0.67 to 1.04)	0.623	S observational studies only
Infection-related mortality (intense vs. moderate dose)	Infection	RR	0.77 (0.57 to 1.04)	0.97 (0.83 to 1.13)	0.181	Both NS
Cancer						
Bladder	NS	RR	1.11 (0.91 to 1.35)	0.83 (0.63 to 1.10)	**0.095**	Both NS
Breast	NS	RR	1.01 (0.79 to 1.29)	1.04 (0.78 to 1.39)	0.880	Both NS
All types	NS	OR	0.85 (0.78 to 0.92)	1.00 (0.94 to 1.06)	**0.002**	S observational studies only
Colorectal	NS	RR	0.91 (0.83 to 1.00)	0.96 (0.85 to 1.08)	0.490	S observational studies only
Gastric	NS	OR	0.61 (0.39 to 0.96)	0.83 (0.66 to 1.05)	0.234	S observational studies only
Gynecologic	NS	RR	1.03 (0.94 to 1.12)	0.97 (0.62 to 1.50)	0.794	Both NS
Hematologic	NS	RR	0.88 (0.82 to 0.95)	0.92 (0.78 to 1.09)	0.634	S observational studies only
Kidney	NS	RR	1.07 (0.96 to 1.20)	1.01 (0.57 to 1.79)	0.846	Both NS
Liver	NS	RR	0.54 (0.34 to 0.87)	0.95 (0.62 to 1.45)	**0.080**	S observational studies only
Lung	NS	RR	0.86 (0.74 to 1.00)	0.95 (0.85 to 1.06)	0.296	Both NS
Pancreatic	NS	RR	1.05 (0.93 to 1.19)	0.99 (0.45 to 2.21)	0.886	Both NS
Prostate	NS	RR	0.93 (0.87 to 1.00)	1.06 (0.93 to 1.20)	**0.077**	S observational studies only
Skin	NS	RR	0.88 (0.74 to 1.05)	1.02 (0.82 to 1.28)	0.307	Both NS
Skeletal						
Bone mineral density						
Hip	NS	SMD	0.22 (0.13 to 0.31)	0.15 (−0.93 to 1.23)	0.899	S observational studies only
Femur	NS	SMD	0.16 (−0.10 to 0.42)	0.38 (0.04 to 0.72)	0.313	S RCTs only
Spine	NS	SMD	0.14 (0 to 0.27)	0.06 (−0.09 to 0.22)	0.446	S observational studies only
Fracture	NS	OR	0.97 (0.83 to 1.12)	1.03 (0.91 to 1.16)	0.542	Both NS
Hip fracture	NS	OR	0.70 (0.51 to 0.96)	1.23 (0.51 to 2.97)	0.238	S observational studies only
Muscular						
Myopathy	NS	OR	2.63 (1.50 to 4.61)	1.19 (0.88 to 1.62)	**0.015**	S observational studies only
Renal						
AKI	NS	OR	1.13 (0.81 to 1.57)	0.50 (0.31 to 0.82)	**0.007**	S RCTs only
Contrast-induced nephropathy	Intervention	OR	0.61 (0.37 to 1.00)	0.57 (0.47 to 0.80)	0.814	S RCTs only
Other						
Diabetes	NS	RR	1.44 (1.31 to 1.58)	1.12 (1.04 to 1.21)	**<0.001**	Both S
Cataract	NS	OR	1.13 (1.01 to 1.25)	0.89 (0.72 to 1.10)	**0.049**	S observational studies only
Infection	NS	OR	0.57 (0.43 to 0.75)	1.00 (0.96 to 1.04)	**<0.001**	S observational studies only
Pancreatitis	NS	Peto OR	1.41 (1.15 to 1.74)	0.77 (0.61 to 0.97)§	**<0.001**	S opposite
Sustained virologic response	HCV infection	RR	1.39 (1.22 to 1.59)	1.24 (1.06 to 1.46)	0.281	Both S
Ventilator-free days	ALI/ARDS	WMD	0.20 (−1.44 to 1.84)	0.40 (−0.72 to 1.52)	0.844	Both NS

Надежность доказательств лечения статинами при коморбидных болезнях недостаточна для изменения рекомендаций

He Y, Li X, Gasevic D, Brunt E, McLachlan F, Millenson M, et al. Statins and Multiple Noncardiovascular Outcomes: Umbrella Review of Meta-analyses of Observational Studies and Randomized Controlled Trials. Ann Intern Med. ;169:543–553..

Бета-блокаторы и цирроз печени

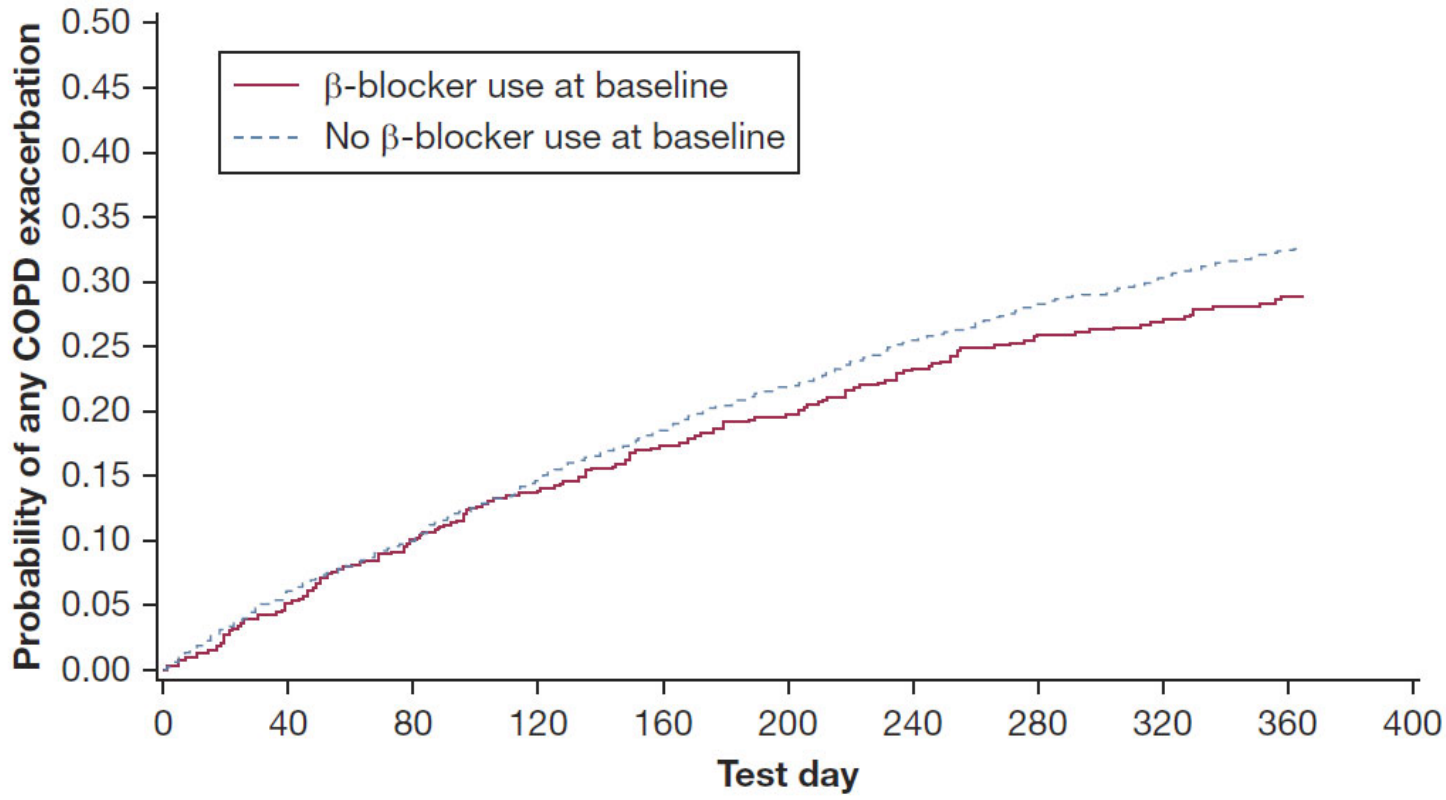


Неселективные бета-блокаторы (карведиолол, пропранолол) снижают риск декомпенсации печени (за счет асцита)

PREDESCI

Villanueva C, Albillos A, Genescà J, et al. b-blockers to prevent decompensation of cirrhosis in patients with clinically significant portal hypertension (PREDESCI): a randomised, double-blind, placebo-controlled, multicentre trial. The Lancet. 2019;10181:1597-1608.

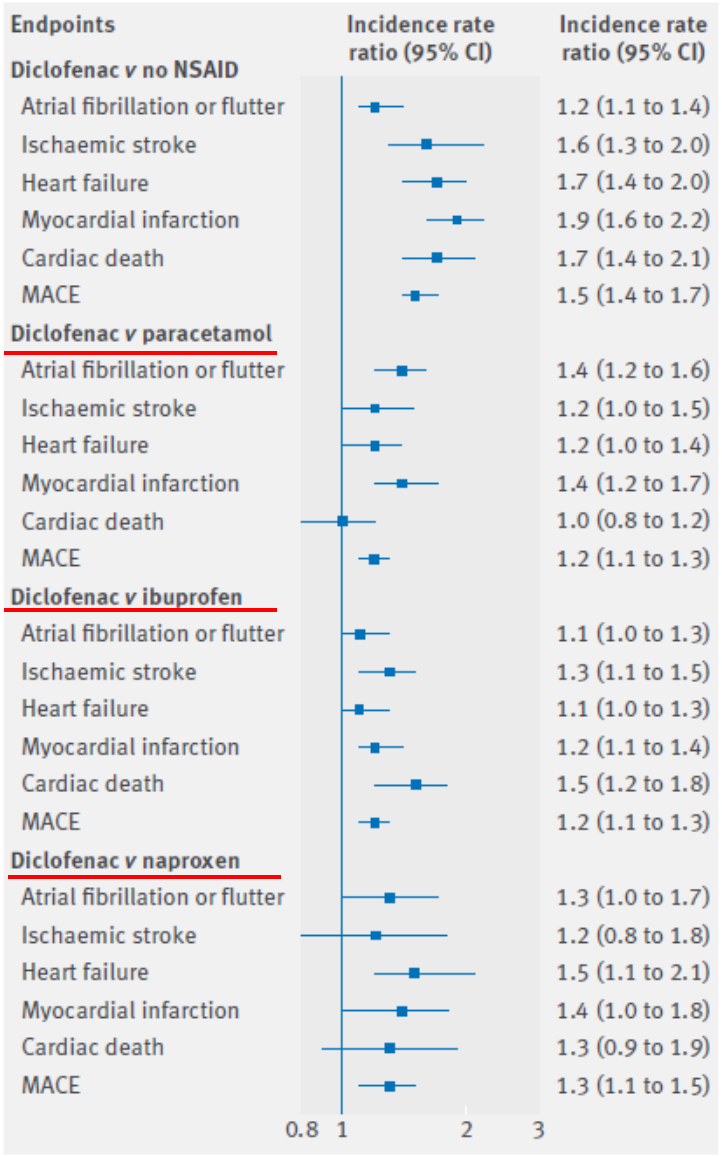
Бета-блокаторы при ХОБЛ

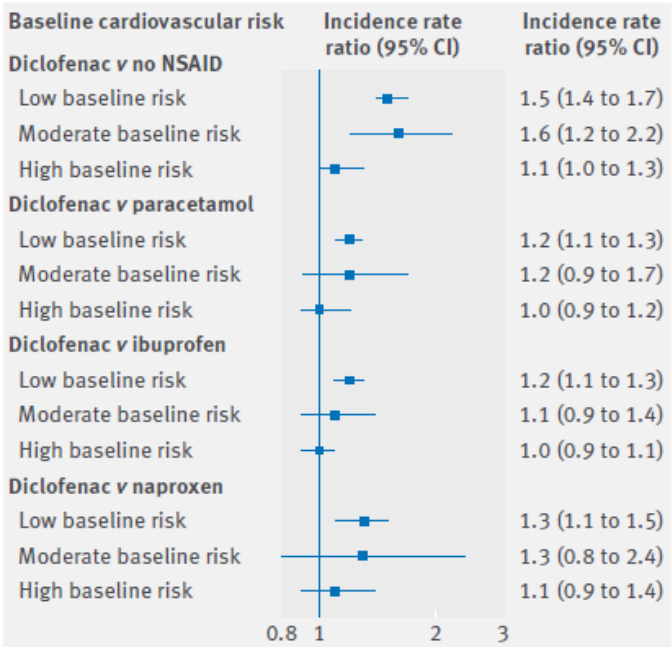


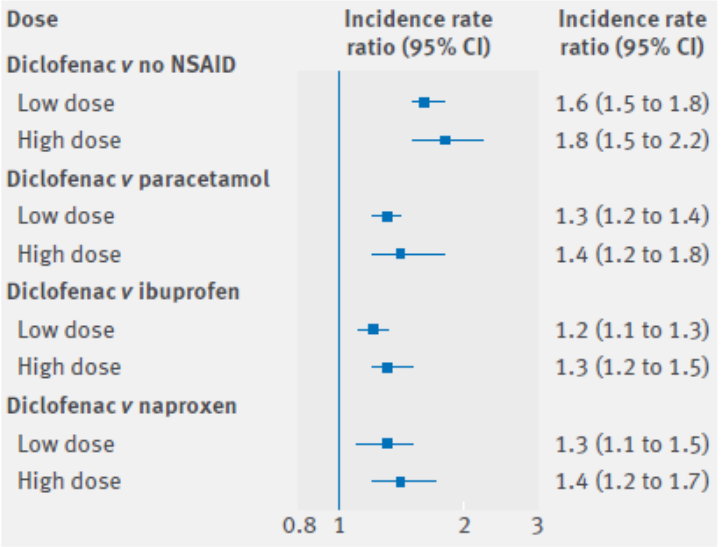
При выраженной обратимой обструкции лучше высокоселективные препараты

Maltais F, Buhl R, Koch A, et al. b-Blockers in COPD. CHEST. 2018;6:1315-1325.

Безопасность НПВП



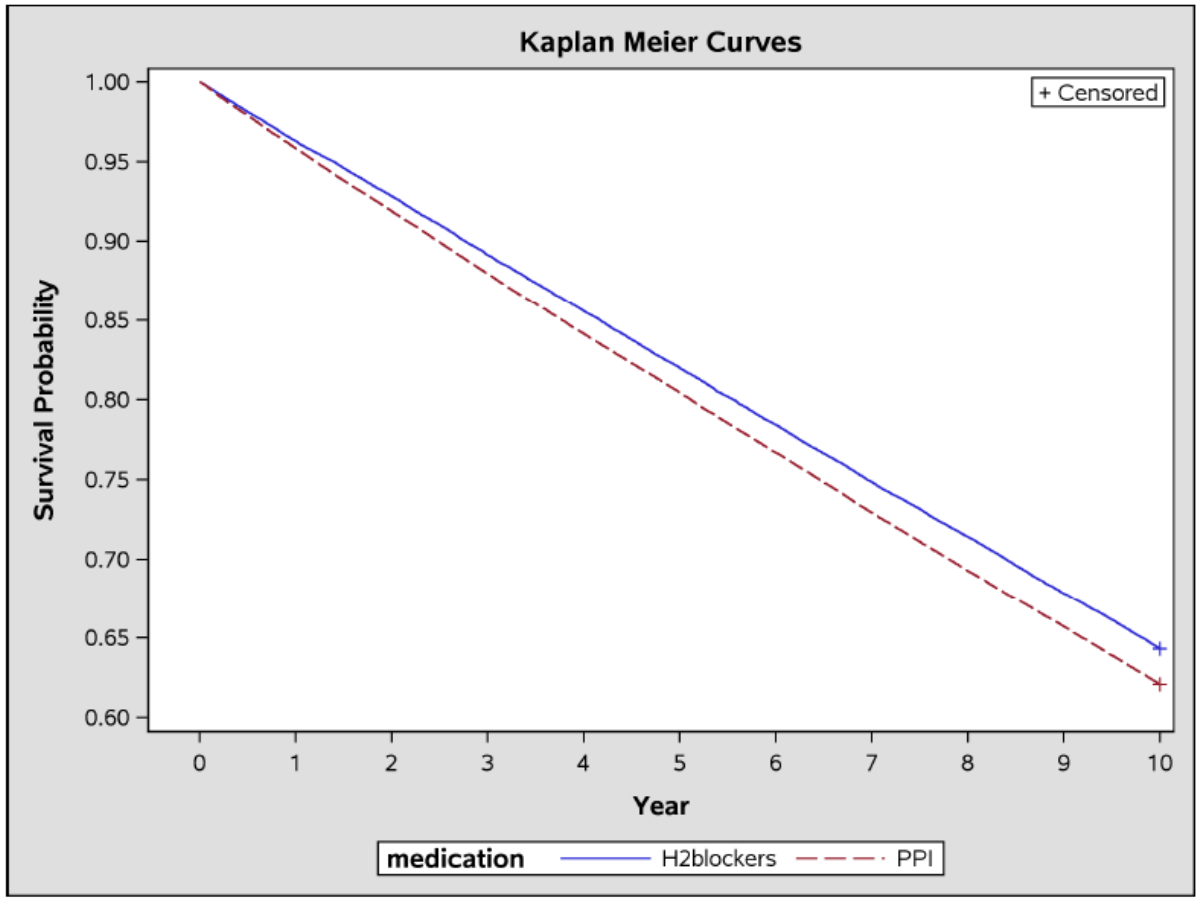




Schmidt M, Sørensen H, Pedersen L, et al. Diclofenac use and cardiovascular risks: series of nationwide cohort studies. BMJ. 2018;362.

Другие ситуации

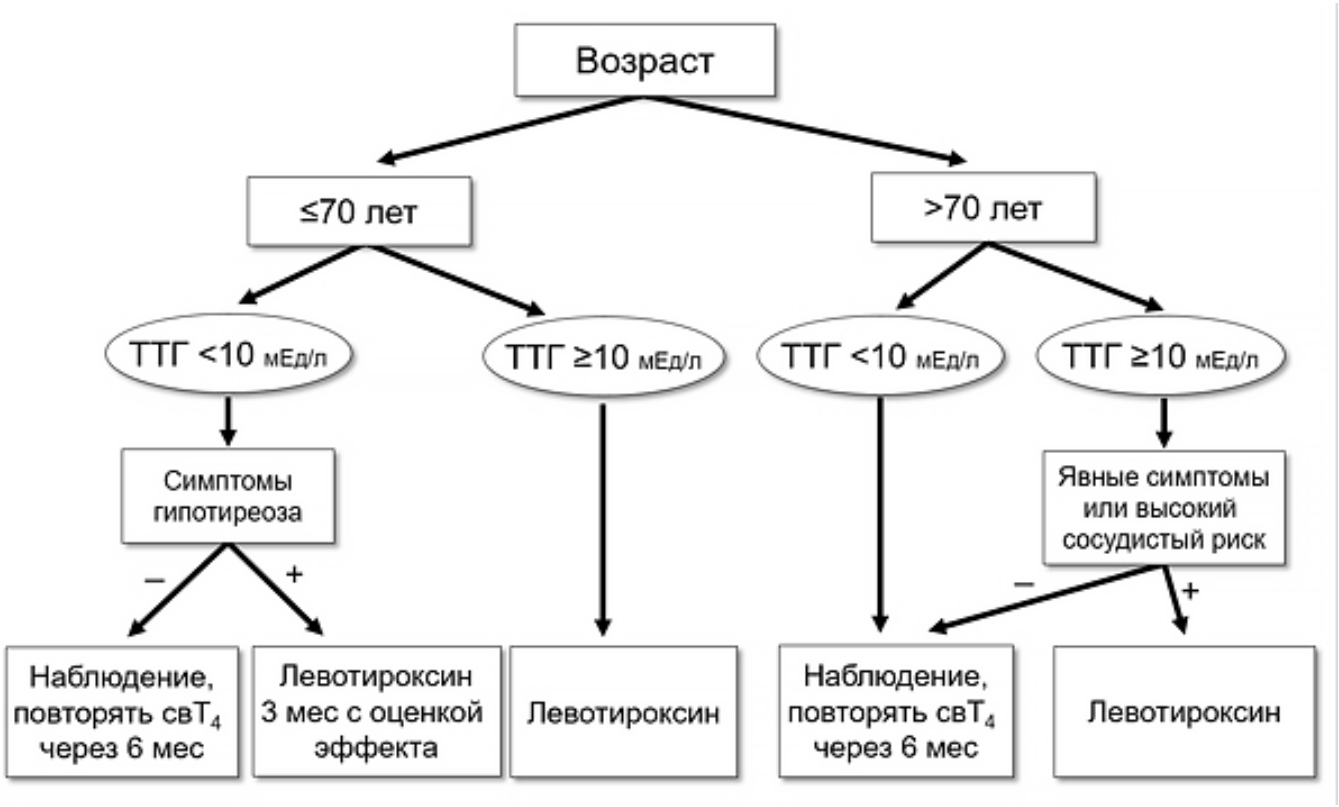
Длительное лечение ИПП



45 смертей на 1000 применявших иПП, 39% сердечно-сосудистые

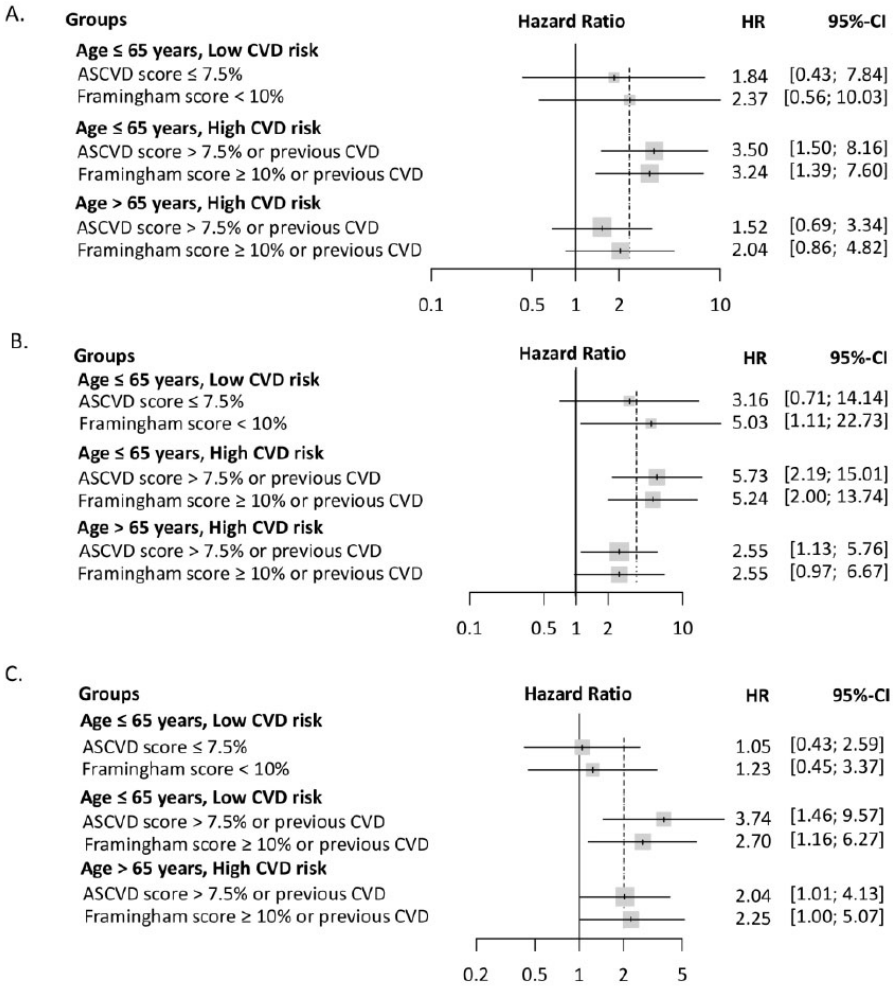
Xie Y, Bowe B, Yan Y, et al. Estimates of all cause mortality and cause specific mortality associated with proton pump inhibitors among US veterans: cohort study. BMJ. 2019;365:l1580..

Лечение субклинического гипотиреоза (АТА)



Moon S, Kong S, Choi H, et al. Relation of Subclinical Hypothyroidism is Associated With Cardiovascular Events and All-Cause Mortality in Adults With High Cardiovascular Risk. American Journal of Cardiology. 2018;4:571-577.

Лечение субклинического гипотиреоза



Уровень ТТГ >7 мЕд/л ассоциируется с повышением СС риска и смертности

Moon S, Kong S, Choi H, et al. Relation of Subclinical Hypothyroidism is Associated With Cardiovascular Events and All-Cause Mortality in Adults With High Cardiovascular Risk. American Journal of Cardiology. 2018;4:571-577.

Контроль астмы и риск ФП

Table 2. Associations Between Asthma, Asthma Control, and the Risk of Atrial Fibrillation Among 54 567 Participants During 15.4 Years of Follow-up

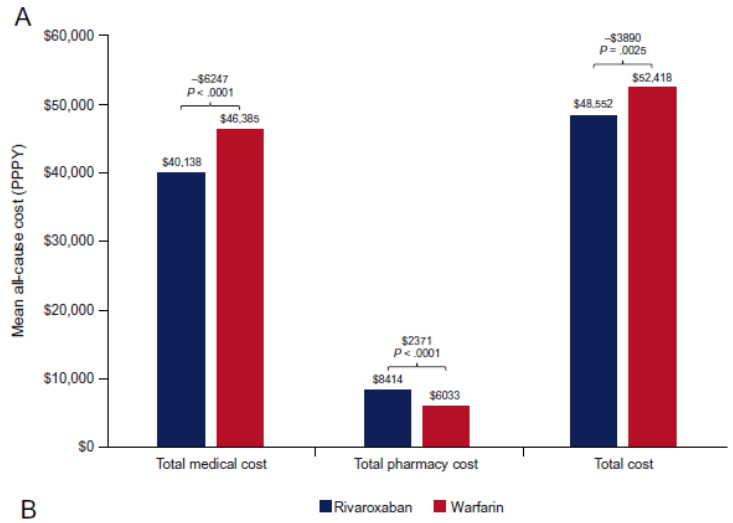
Status	Patients, No.	Person-Years, No.	Atrial Fibrillation, No. (%)	Hazard Ratios (95% CI)[a]	
				Model 1[b]	Model 2[c]
Asthma					
No asthma	48 606	752 149	1806 (3.7)	1 [Reference]	1 [Reference]
Ever	5961	89 883	265 (4.5)	1.30 (1.13-1.48)	1.27 (1.10-1.46)
Diagnosed	3934	56 192	199 (5.1)	1.42 (1.21-1.67)	1.38 (1.18-1.61)
Active	2485	31 889	150 (6.0)	1.81 (1.51-2.16)	1.76 (1.47-2.10)
Asthma control[d]					
Controlled	2947	44 267	108 (3.7)	1.19 (0.98-1.45)	1.16 (0.95-1.41)
Partly controlled	1807	27 974	101 (5.6)	1.42 (1.16-1.73)	1.40 (1.14-1.71)
Uncontrolled	547	8329	38 (7.0)	1.74 (1.25-2.41)	1.74 (1.26-2.42)

Чем тяжелее астма и хуже контроль, тем выше риск ФП

Cepelis A, Brumpton BM, Malmo V, et al. Associations of Asthma and Asthma Control With Atrial Fibrillation RiskResults From the Nord-Trøndelag Health Study (HUNT). JAMA Cardiol. 2018;3(8):721–728.

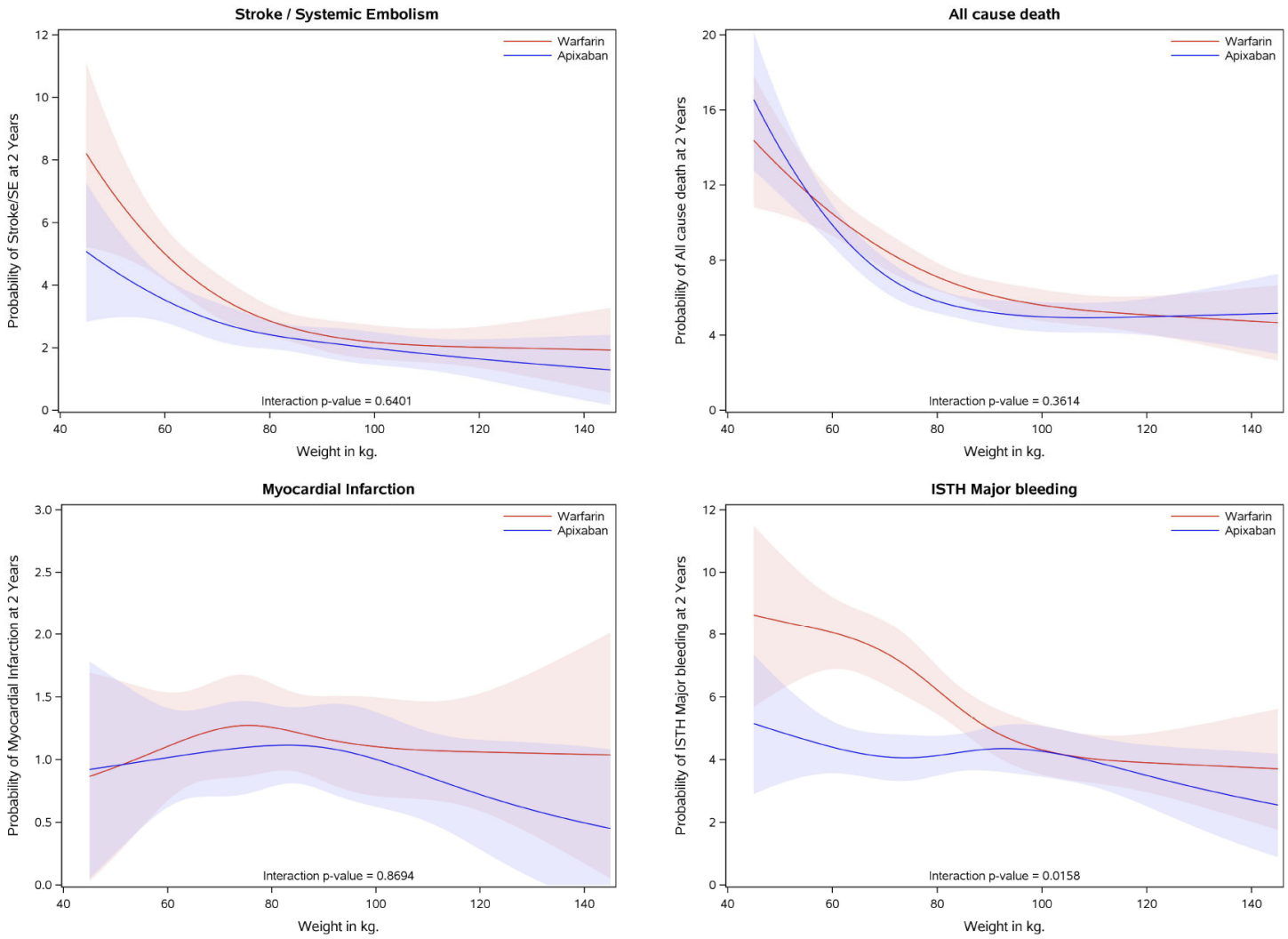
Антикоагулянты при ФП и ожирении

	Rivaroxaban (n = 3563)	Warfarin (n = 3563)	Estimate* (95% CI)	P
Follow-up time, months, mean (SD)	10.27 (2.89)	10.56 (2.70)	−0.29 (−0.42, −0.16)	<.0001
Composite risk of ischemic stroke/systemic embolism†, n (%)	52 (1.5%)	59 (1.7%)	0.88 (0.60, 1.28)	.5028
Number of composite events (PPPY), mean (SD)	0.001 (0.046)	0.002 (0.048)	−0.01 (−0.02, 0.01)	.3592
Time to first composite event, days, mean (SD)	111.87 (107.01)	125.90 (105.64)	0.90 (0.62, 1.30)	.5690
Risk of major bleeding‡, n (%)	77 (2.2)	96 (2.7)	0.80 (0.59, 1.08)	.1447
Number of major bleeding events (PPPY), mean (SD)	0.03 (0.20)	0.03 (0.22)	−0.01 (−0.01, 0.01)	.2570
Time to first major bleeding event, days, mean (SD)	127.99 (97.72)	147.56 (110.65)	0.82 (0.61, 1.10)	.1878

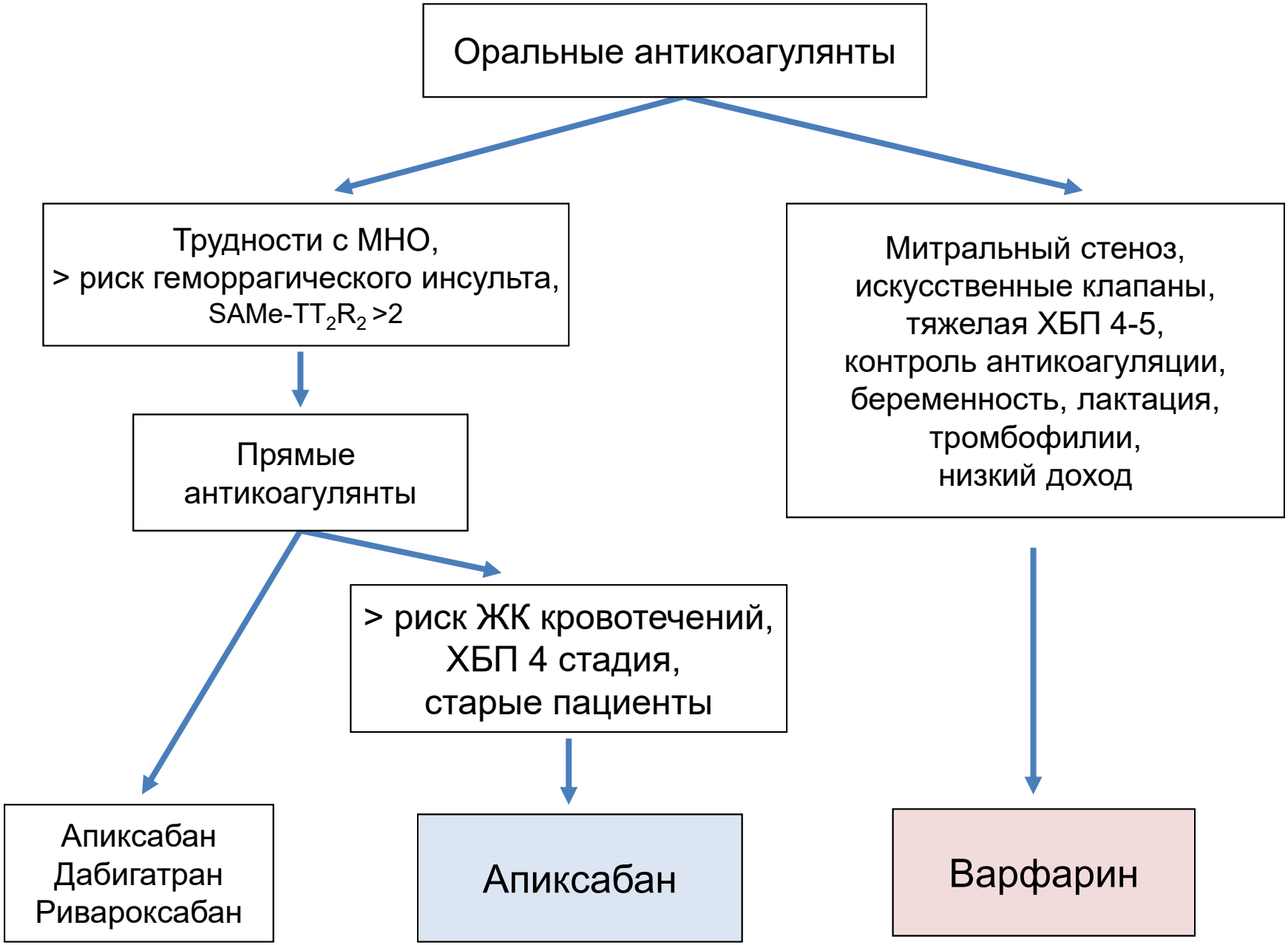


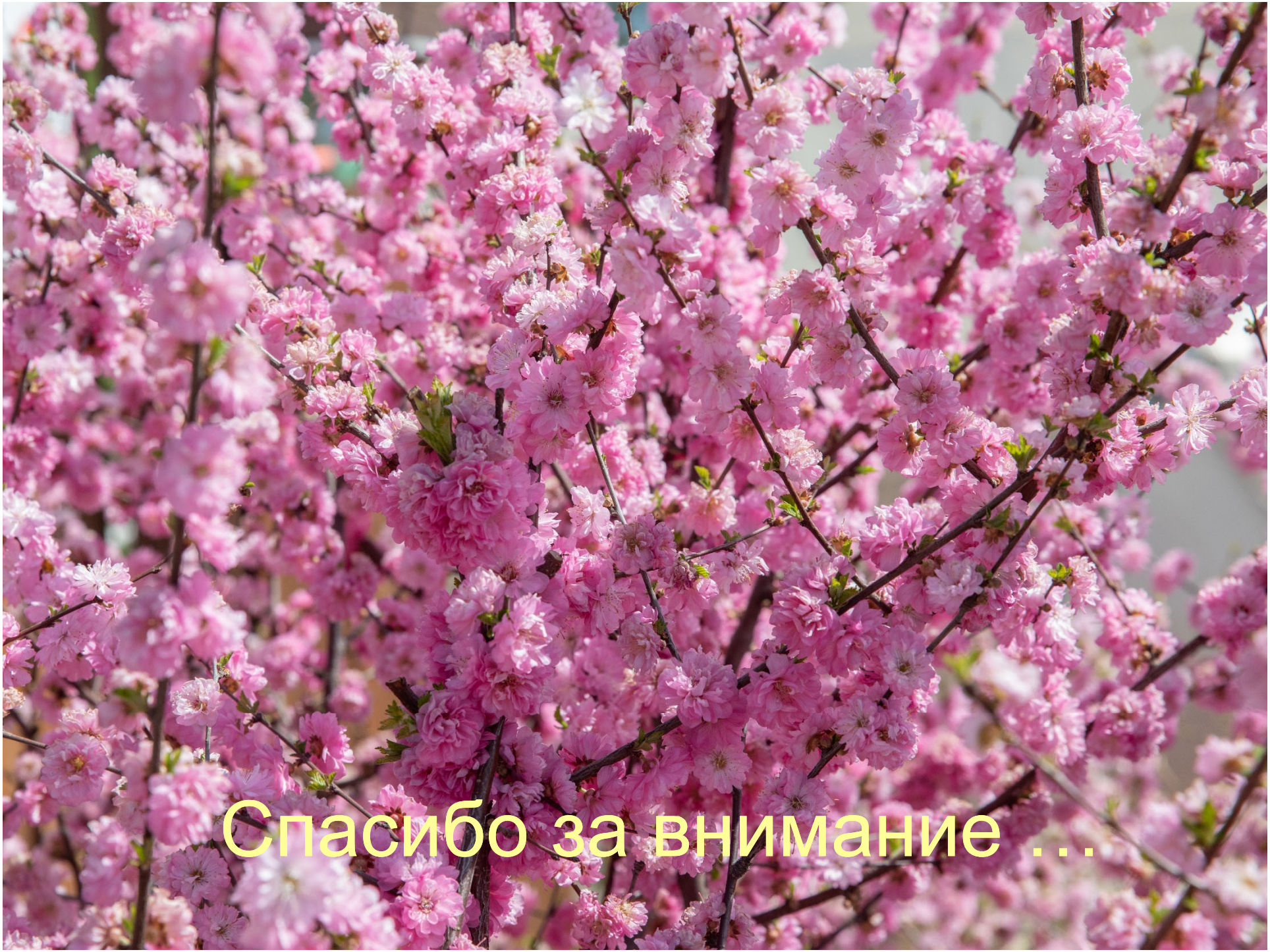
Peterson E, Ashton V, Chen Y, et al. Comparative effectiveness, safety, and costs of rivaroxaban and warfarin among morbidly obese patients with atrial fibrillation. American Heart Journal. 2019;212:113-119.

Антикоагулянты при ФП и ожирении



Hohnloser S, Fudim M, Alexander J, et al. Efficacy and Safety of Apixaban Versus Warfarin in Patients With Atrial Fibrillation and Extremes in Body Weight. Circulation. 2019;20:2292-2300.


Оральные антикоагулянты
Трудности с МНО,
> риск геморрагического инсульта,
SAMe-TT2R2 >2
Прямые
антикоагулянты
Митральный стеноз,
искусственные клапаны,
тяжелая ХБП 4-5,
контроль антикоагуляции,
беременность, лактация,
тромбофилии,
низкий доход
> риск ЖК кровотечений,
ХБП 4 стадия,
старые пациенты
Апиксабан
Дабигатран
Ривароксабан
Апиксабан
Варфарин


Спасибо за внимание …