XXXXXXXXX-Title of manuscript-XXXXXXXXXX

Abstract

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

KEYWORDS: xxxxxxxxxx; xxxxx; xxxxxx; xxxxxxxx; xxxxxxxxxx.

Introduction

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[1] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[2] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[3] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[4]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[5] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[6] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx,[7] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[8] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

Xxxxx xxxxxx xxxxxxxx

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[9]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[10] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[11] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[12] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[13] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[14] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[15] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[16]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[17] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx

xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[18]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[19] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx,[20] xxx,[21] xxxxx,[22]. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx,[23] xxxx,[24] xxxxx.[25,26] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx,[19] xxxxx,[27] xxxxx[28] xxxxxx xxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[29] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[30] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

Xxxxx xxxxxxx xxxxxx

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[1] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx

xxxxxxxx.[31] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[2,32]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[33] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[34] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[33]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx,[33,34] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[35,36]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[37] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[33,38] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[33]

Xxxx xxxxx xxxxx

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[39] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[40] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[41] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[39,42]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[43,44] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[44] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[39]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[45] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[46]

Xxxx xxxxx xxxxx

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[6] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[47] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[48] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[47] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[48]

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[49] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[50,51] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[54] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.[55] Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

Conclusion

Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

References

1. Manera KE, Johnson DW, Craig JC, et al. Patient and Caregiver Priorities for Outcomes in Peritoneal Dialysis: Multinational Nominal Group Technique Study. Clin J Am Soc Nephrol 2019;14:74-83.
2. Al Sahlawi M, Bargman JM, Perl J. Peritoneal Dialysis-Associated Peritonitis: Suggestions for Management and Mistakes to Avoid. Kidney Med 2020;2:467-75.
3. Li PK, Szeto CC, Piraino B, et al. ISPD Peritonitis Recommendations: 2016 Update on Prevention and Treatment. Perit Dial Int 2016;36:481-508.
4. Liao CT, Zheng CM, Lin YC, et al. Aberrant serum parathyroid hormone, calcium, and phosphorus as risk factors for peritonitis in peritoneal dialysis patients. Sci Rep 2021;11:1171.
5. Bilezikian JP, Khan AA, Silverberg SJ, et al. Evaluation and Management of Primary Hyperparathyroidism: Summary Statement and Guidelines from the Fifth International Workshop. J Bone Miner Res 2022;37:2293-314.
6. Beto JA. The role of calcium in human aging. Clin Nutr Res 2015;4:1-8.
7. Vig M, Kinet JP. Calcium signaling in immune cells. Nat Immunol 2009;10:21-7.
8. Wang AY. Calcium balance and negative impact of calcium load in peritoneal dialysis patients. Perit Dial Int 2014;34:345-52.
9. Andreoli MCC, Totoli C. Peritoneal Dialysis. Rev Assoc Med Bras (1992) 2020;66Suppl 1:s37-s44.
10. Gottschalk CW, Fellner SK. History of the science of dialysis. Am J Nephrol 1997;17:289-98.
11. Wegner G. Chirurgische bemerkungen uber die peritonealhohle. mit besonderer berucksichtigung der ovariotomie Arch F Chir 1877;20:51-5.
12. Palmer RA. As it was in the beginning: a history of peritoneal dialysis. Peritoneal Dialysis International 1981;2:16-22.
13. Odel HM, Ferris DO, Power MH. Peritoneal lavage as an effective means of extrarenal excretion; a clinical appraisal. Am J Med 1950;9:63-77.
14. Boen S. Kinetics of peritoneal dialysis: a comparison with the artificial kidney. Medicine 1961;40:243-88.
15. Popovich R, MoncriefJW NK, DecherdJF B. Pyle¥ K. The definition of a novel portable/wearablee equilibrium dialysis technique. Trans Am Soc Artif Intern Organs 1976.
16. Popovich RP, Moncrief JW, Nolph KD, et al. Continuous ambulatory peritoneal dialysis. Ann Intern Med 1978;88:449-56.
17. Al-Natour M, Thompson D. Peritoneal Dialysis. Semin Intervent Radiol 2016;33:3-5.
18. Shetty A, Oreopoulos D. Peritoneal dialysis: its indications and contraindications. Dialysis & transplantation 2000;29:71-7.
19. Yang F, Khin LW, Lau T, et al. Hemodialysis versus Peritoneal Dialysis: A Comparison of Survival Outcomes in South-East Asian Patients with End-Stage Renal Disease. PLoS One 2015;10:e0140195.
20. Heaf JG, Wehberg S. Relative survival of peritoneal dialysis and haemodialysis patients: effect of cohort and mode of dialysis initiation. PLoS One 2014;9:e90119.
21. Garcia-Canton C, Rufino-Hernandez JM, Vega-Diaz N, et al. A comparison of medium-term survival between peritoneal dialysis and haemodialysis in accordance with the initial vascular access. Nefrologia 2013;33:629-39.
22. Sanabria M, Munoz J, Trillos C, et al. Dialysis outcomes in Colombia (DOC) study: a comparison of patient survival on peritoneal dialysis vs hemodialysis in Colombia. Kidney Int Suppl 2008:S165-72.
23. Wong B, Ravani P, Oliver MJ, et al. Comparison of Patient Survival Between Hemodialysis and Peritoneal Dialysis Among Patients Eligible for Both Modalities. Am J Kidney Dis 2018;71:344-51.
24. Choi SJ, Obi Y, Ko GJ, et al. Comparing Patient Survival of Home Hemodialysis and Peritoneal Dialysis Patients. Am J Nephrol 2020;51:192-200.
25. Lin HH, Tsai CW, Lin PH, et al. Survival analysis of pediatric dialysis patients in Taiwan. Nephrology (Carlton) 2012;17:621-7.
26. Huang CC, Cheng KF, Wu HD. Survival analysis: comparing peritoneal dialysis and hemodialysis in Taiwan. Perit Dial Int 2008;28 Suppl 3:S15-20.
27. Herrera L, Gil F, Sanabria M. Hemodialysis vs Peritoneal Dialysis: Comparison of Net Survival in Incident Patients on Chronic Dialysis in Colombia. Can J Kidney Health Dis 2021;8:2054358120987055.
28. Antolin A, Miguel A, Perez J, et al. [Analysis of survival in dialysis: hemodialysis versus peritoneal dialysis and the significance of comorbidity]. Nefrologia 2002;22:253-61.
29. Lu J, Shi D, Zhao X, et al. Comparative Analysis of Efficacy and Prognosis of Hemodialysis and Peritoneal Dialysis for End-Stage Renal Disease: A Meta-analysis. Comput Math Methods Med 2022;2022:6007698.

30. Chuasuwan A, Pooripussarakul S, Thakkinstian A, et al. Comparisons of quality of life between patients underwent peritoneal dialysis and hemodialysis: a systematic review and meta-analysis. Health Qual Life Outcomes 2020;18:191.
31. Brown MC, Simpson K, Kerssens JJ, et al. Peritoneal dialysis-associated peritonitis rates and outcomes in a national cohort are not improving in the post-millennium (2000-2007). Perit Dial Int 2011;31:639-50.
32. Boudville N, Kemp A, Clayton P, et al. Recent peritonitis associates with mortality among patients treated with peritoneal dialysis. J Am Soc Nephrol 2012;23:1398-405.
33. Salzer WL. Peritoneal dialysis-related peritonitis: challenges and solutions. Int J Nephrol Renovasc Dis 2018;11:173-86.
34. Wang HH, Huang CH, Kuo MC, et al. Microbiology of peritoneal dialysis-related infection and factors of refractory peritoneal dialysis related peritonitis: A ten-year single-center study in Taiwan. J Microbiol Immunol Infect 2019;52:752-9.
35. Kerschbaum J, Konig P, Rudnicki M. Risk factors associated with peritoneal-dialysis-related peritonitis. Int J Nephrol 2012;2012:483250.
36. Li PK, Chow KM, Cho Y, et al. ISPD peritonitis guideline recommendations: 2022 update on prevention and treatment. Perit Dial Int 2022;42:110-53.
37. Moinuddin Z, Summers A, Van Dellen D, et al. Encapsulating peritoneal sclerosis-a rare but devastating peritoneal disease. Front Physiol 2014;5:470.
38. Akoh JA. Peritoneal dialysis associated infections: An update on diagnosis and management. World J Nephrol 2012;1:106-22.
39. Taylor JG, Bushinsky DA. Calcium and phosphorus homeostasis. Blood Purif 2009;27:387-94.
40. Cormick G, Belizan JM. Calcium Intake and Health. Nutrients 2019;11.
41. Calvo MS, Lamberg-Allardt CJ. Phosphorus. Adv Nutr 2015;6:860-2.
42. Bargagli M, Ferraro PM, Vittori M, et al. Calcium and Vitamin D Supplementation and Their Association with Kidney Stone Disease: A Narrative Review. Nutrients 2021;13.
43. Hoenderop JG, Nilius B, Bindels RJ. Calcium absorption across epithelia. Physiol Rev 2005;85:373-422.
44. Talmage RV, Mobley HT. Calcium homeostasis: reassessment of the actions of parathyroid hormone. Gen Comp Endocrinol 2008;156:1-8.
45. Duque EJ, Elias RM, Moyses RMA. Parathyroid Hormone: A Uremic Toxin. Toxins (Basel) 2020;12.
46. Schofl C. [Update - Calcium Metabolism]. Dtsch Med Wochenschr 2019;144:1125-32.
47. Goyal A, Anastasopoulou C, Ngu M, Singh S. Hypocalcemia. StatPearls. Treasure Island (FL)2022.
48. Turner JJO. Hypercalcaemia - presentation and management. Clin Med (Lond) 2017;17:270-3.
49. Reid IR, Bolland MJ. Controversies in medicine: the role of calcium and vitamin D supplements in adults. Med J Aust 2019;211:468-73.
50. Shrimanker I, Bhattarai S. Electrolytes. StatPearls. Treasure Island (FL)2022.
51. Jain A, Bhayana S, Vlasschaert M, House A. A formula to predict corrected calcium in haemodialysis patients. Nephrol Dial Transplant 2008;23:2884-8.
52. Favus MJ. Primer on the metabolic bone diseases and disorders of mineral metabolism. Primer on the metabolic bone diseases and disorders of mineral metabolism1996:477-.
53. Payne RB, Little AJ, Williams RB, Milner JR. Interpretation of serum calcium in patients with abnormal serum proteins. Br Med J 1973;4:643-6.
54. Ferrari P, Singer R, Agarwal A, et al. Serum phosphate is an important determinant of corrected serum calcium in end-stage kidney disease. Nephrology (Carlton) 2009;14:383-8.
55. Lehmann M, Mimouni F. Serum phosphate concentration. Effect on serum ionized calcium concentration in vitro. Am J Dis Child 1989;143:1340-1.

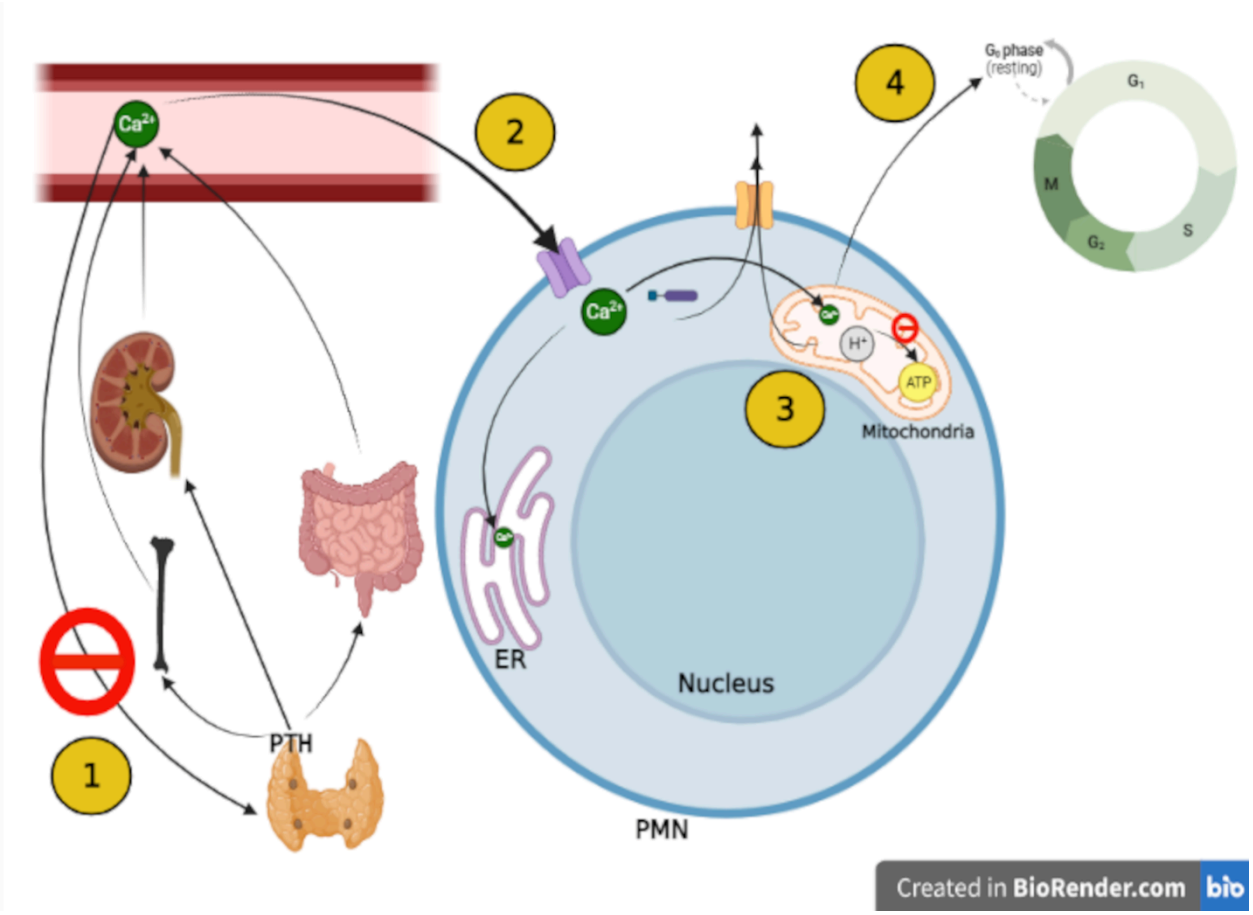

Figure 1. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx. (1) Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

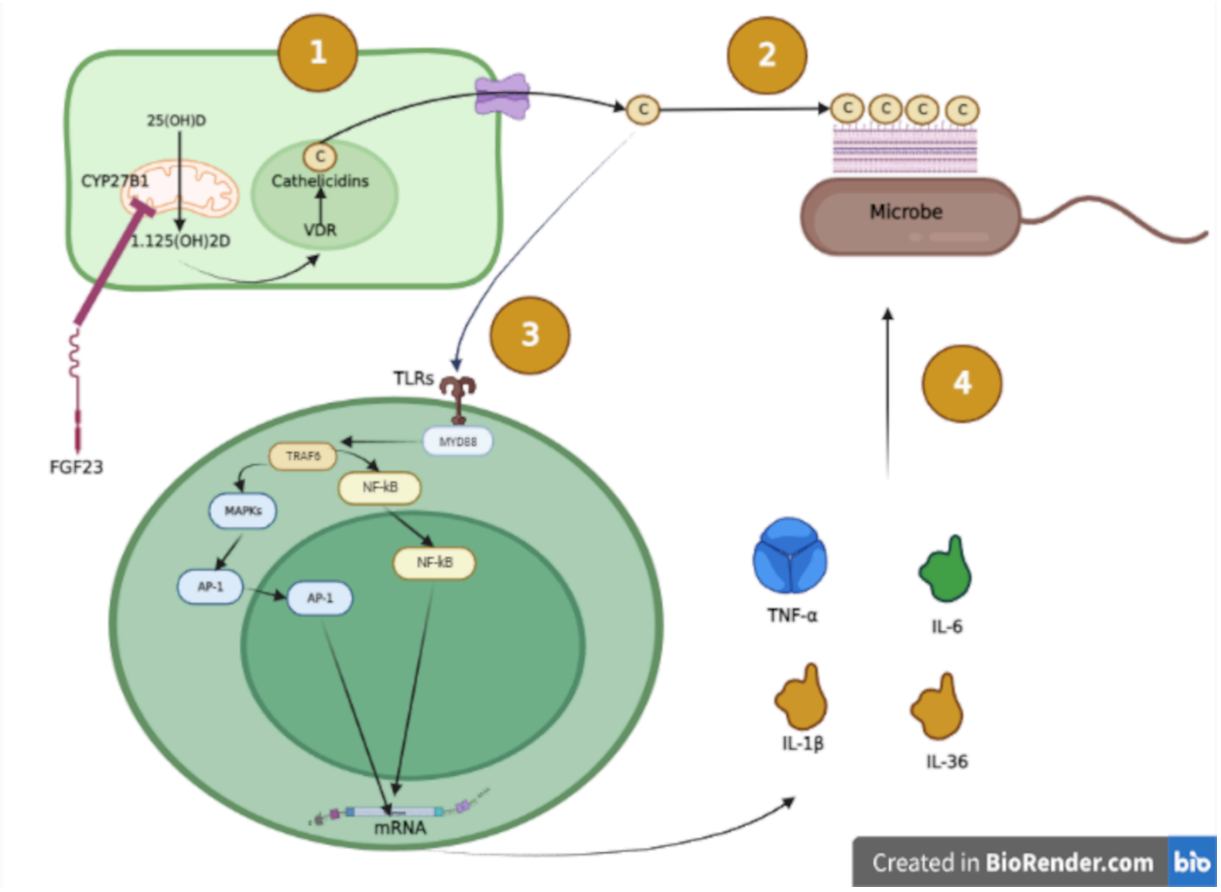

Figure 2. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxx xxxxxxxxx xxxxxxxxx xxxxxxxx. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.

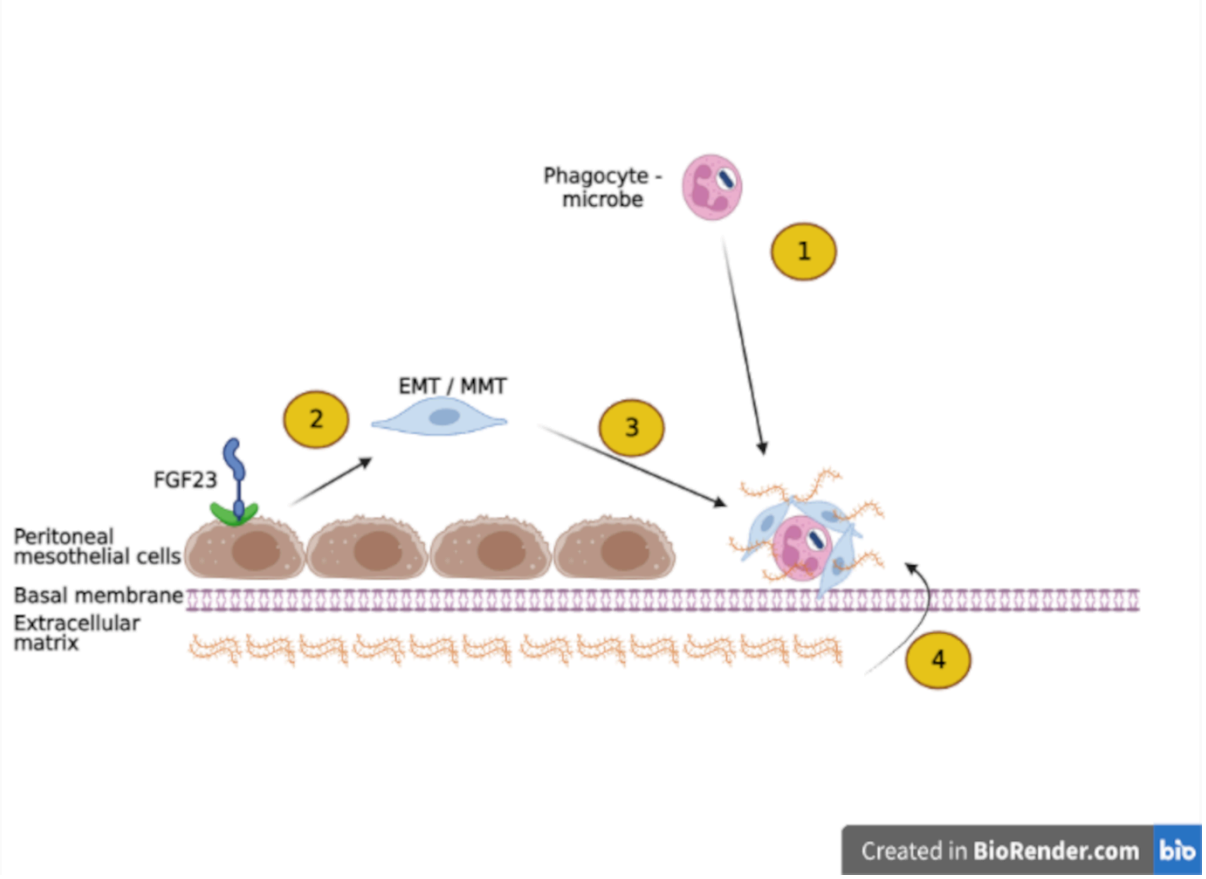

Figure 3. Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxx xxxxxxxx Xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxx xxxxxxxx xxxxxxx xxxxxxx xxxxxx xxxxxxxxx xxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxxxx xxxxxxxx.