[“probiotic ingestion can be beneficial in alleviating GI adverse events in patients with type 2 diabetes who are intolerant to metformin, highlighting the potential of probiotics as a supportive therapy in managing metformin intolerance in diabetic patients.”,

“incorporating lifestyle modifications such as caloric restriction and physical exercise can be beneficial in improving outcomes for adults with type 2 diabetes compared to standard care without structured lifestyle interventions.”,

“metformin is a recommended first-line treatment for type 2 diabetes due to its efficacy in reducing HbA1c levels, minimal risk of hypoglycemia, and potential cardiovascular benefits. However, individualized treatment considerations should be made based on patient factors, including comorbidities, preferences, and treatment goals.”,

“In youth aged 10-17 years with type 2 diabetes, treatment with empagliflozin (10 mg or 25 mg) resulted in a clinically relevant and statistically significant reduction in HbA1c levels compared to placebo after 26 weeks. Specifically, empagliflozin demonstrated a lowering of HbA1c of about 0.8% versus placebo at week 26. Additionally, the adjusted mean change in HbA1c values at week 26 in the dosing regimen up-titrating non-responders to empagliflozin 25 mg was -0.52% compared to the placebo group.”,

“Adverse events were reported in 64.2% of participants in the placebo group, 76.9% in the empagliflozin pooled doses group, and 71.2% in the linagliptin treatment group. Severe adverse events were reported in 3.8% of placebo-treated participants, 1.9% of empagliflozin pooled-treated participants, and 1.9% of linagliptin-treated participants. Hypoglycemia was the most frequently reported adverse event, with higher rates for those on active drug treatment compared to placebo. However, no severe hypoglycemia cases were reported. Overall, the rates of adverse events in non-responders re-randomized to empagliflozin 10 mg and 25 mg were low and comparable with rates in the placebo group”,

“In youth aged 10-17 years with type 2 diabetes, treatment with empagliflozin (10 mg or 25 mg) compared to linagliptin (5 mg) resulted in a more significant reduction in HbA1c levels after 26 weeks. Specifically, the adjusted mean change from baseline in HbA1c at week 26 was -0.84% in the empagliflozin pooled groups versus placebo, while the change from baseline for linagliptin versus placebo was -0.34%. This indicates that empagliflozin led to a greater reduction in HbA1c levels compared to linagliptin in this study.”,

“In adolescents aged 12-15 years, the BNT162b2 vaccine has shown to be highly effective in preventing COVID-19 infection compared to a placebo. Phase 3 clinical trials conducted in the USA with 2260 young participants in this age group demonstrated 100% efficacy post-BNT162b2 vaccination. Specifically, the vaccinated group had zero infected participants compared to 18 cases of SARS-CoV-2 infection in the placebo group. These findings highlight the strong protective effect of the BNT162b2 vaccine in adolescents aged 12-15 years.”,

“In individuals aged 16 years and older, the BNT162b2 vaccine has been associated with some adverse effects, but they are generally mild to moderate in severity. Common systemic effects following the second dose of the vaccine include fever, fatigue, and chills. Fever was reported by 16% of younger participants (16-55 years) and 11% of the elderly population (over 55 years) following the second dose, with symptoms subsiding relatively quickly. In terms of adverse effects compared to a placebo, data from clinical trials showed that the incidence of SARS-CoV-2 infection was significantly lower in the vaccinated group compared to the placebo group. Additionally, a healthcare professional who participated in the BNT162b2 vaccine trial reported only experiencing mild effects such as arm soreness after the first dose, with no discerning effects following the second dose.Overall, while some mild to moderate adverse effects may occur with the BNT162b2 vaccine, the incidence and severity are generally manageable and outweighed by the vaccine's protective benefits against COVID-19.”,

“In individuals aged 16 years and older, the efficacy of the first dose of the BNT162b2 vaccine in preventing COVID-19 infection 12 days post-administration was noted to be 52% with a 95% confidence interval ranging from 29.5 to 68.4. This efficacy data was observed among participants who received the first dose of the BNT162b2 vaccine compared to those who received a placebo. The study findings indicate that even after the first dose, the BNT162b2 vaccine provides significant early protection against COVID-19, with a notable efficacy rate within a relatively short timeframe post-administration.”,

“vaccination plays a crucial role in not only preventing diseases but also in reducing the severity of breakthrough cases, as evidenced by the positive impact on the BOI score in various vaccine-preventable diseases.”,

“In autologous hematopoietic stem cell transplantation (HSCT) recipients 18 years of age and older, the adjuvanted Recombinant Zoster Vaccine (RZV) has been shown to significantly reduce the burden-of-illness (BOI) score for Herpes Zoster compared to placebo [T12]. This indicates that RZV is effective in reducing the impact of Herpes Zoster in this specific population, highlighting the importance of vaccination in HSCT recipients to prevent shingles-related complications.”,

“In individuals participating in vaccine clinical trials, the adjusted vaccine efficacy (VE) based on burden-of-illness (BOI) scores provides a more comprehensive assessment of the vaccine's effectiveness by accounting for baseline covariates that may influence the outcomes [T13]. This adjusted VE takes into consideration factors such as age, gender, underlying health conditions, and other relevant variables to provide a more accurate estimation of the vaccine's impact on reducing the burden of illness. Comparatively, unadjusted VE calculations do not account for these baseline covariates, potentially leading to biased estimates of the vaccine's efficacy. By adjusting for baseline covariates, the VE based on BOI scores offers a more reliable and robust evaluation of the vaccine's effectiveness in real-world settings, providing valuable insights for public health decision-making and vaccine policy recommendations.”]