

A = Active Alert, N = No Alert

Medication	Alert Type	Gene	Phenotype	Alert Language
codeine	A	CYP2D6	Ultrarapid Metabolizer	Consider an alternative drug or a 50% decrease in codeine dose and be alert for Adverse Drug Effects. Level of evidence: Strong . This ultrarapid metabolizer status predicts increased opiate effects of codeine.
	N		Normal	
	A		Reduced Metabolizer	Consider starting with normal dose, but be alert for symptoms of insufficient pain relief. Level of evidence: Moderate . This reduced metabolizer status predicts reduced opiate activity of codeine.
	A		Poor Metabolizer	Consider an alternative drug or be alert for symptoms of insufficient pain relief. Level of evidence: Strong . This poor metabolizer status predicts lack of codeine opiate activity.

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Medication	Alert Type	Gene	Phenotype	Alert Language
Tramadol	A	CYP2D6	Ultrarapid Metabolizer	Consider a 50% decrease in dose and be alert for Adverse Drug Effects. Level of evidence: Moderate . This ultrarapid metabolizer status predicts increased opiate effects of tramadol.
	N		Normal Metabolizer	
	A		Reduced Metabolizer	Consider an increased dose and be alert for symptoms of insufficient pain relief. Level of evidence: Strong . This reduced metabolizer status predicts reduced opiate activity of tramadol.
	A		Poor Metabolizer	Consider an alternative drug or be alert for symptoms of insufficient pain relief. Level of evidence: Strong . This poor metabolizer status predicts lack of tramadol opiate activity.